art
science
ihc

CANCER DIAGNOSTICS, INC

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CANCER DIAGNOSTICS, INC

Immunohistochemistry

Reference Guide

IVD

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HOW TO ORDER

Operating Hours
Monday through Friday 8:00 a.m. To 5:00 p.m (EST)

Contact Information
Cancer Diagnostics, Inc. 4300 Emperor Blvd. -400 Durham, NC 27703

Ordering information
PHONE: **1-877-846-5393**
FAX: **1-877-817-1716**
EMAIL: **info@cancerdiagnostics.com**
WEBSITE: **www.cancerdiagnostics.com**
EDI: **GHX (Electronic Trading Exchange) U.S. healthcare organizations that are part of the GHX network can transact with Cancer Diagnostics through the GHX electronic trading exchange**

SHIPPING
FOB Santa Barbara, CA, or Durham, NC. Shipping and handling charges are prepaid and added to the invoice. Charges vary with the destination, weight and content, and are available upon request at order entry and are indicated on the invoice. Reagent orders received by 4:00 P.M. (EST), Monday through Thursday, will generally be Expedited Shipping for Next Day Delivery. Early A.M. and Saturday delivery are available upon request. Those items that do not require refrigeration are shipped ground via common carrier where applicable.

RETURNED GOODS POLICY
All Reagents are covered by the following Total Quality Assurance policy which states:
If you are not completely satisfied with the quality of our reagents, you may return them to us for a refund or replacement, at our option. CDI's liability is limited to a product refund or replacement. Please obtain a Return Goods Authorization (RGA) number from Customer Service prior to the return of a product.

Returns, which are not caused by unsatisfactory product performance, must be made within 30 days of delivery and will be subject to a 30% restocking/processing fee. Returns or replacements cannot be accommodated for expired products.

STANDING ORDER ARRANGEMENT
A standing order is the amount and variety of products you would like to have delivered automatically on any date you choose. Standing orders are easy to initiate and can be placed on hold, changed or canceled at any time. Any product, and any quantity can be placed on standing order. Please contact your sales representative or customer service for more information.

TECHNICAL SUPPORT
Technical questions can be answered by calling our toll free number and asking for technical support (ext. 3) or emailing **info@cancerdiagnostics.com**.

Customer service can provide you with any MSDS or product information required and it is also available on our website.

NOTE: This page refers to ordering information and policies in reference to our Immunohistochemistry products. For Anatomical Pathology Products, please refer to ordering information section in our latest catalog, AP Products, Vol. 8.

Dear Laboratory Professional,

Cancer Diagnostics, Inc. (CDI) immunohistochemistry reference guide 2015 makes its debut with over 330 IVD antibodies including over 130 Rabbit monoclonals. Antibodies are compatible with all industry detection systems to ensure easy incorporation into existing laboratory protocols. This guide is a gateway to exceptional products manufactured to the highest IVD standards including a diverse selection of detection systems, chromagens and IHC ancillaries. Use this guide to explore and find the right solution for your laboratory. We make ordering easy with 100% satisfaction guarantee, no contracts, no minimum orders and excellent technical support.

All IVD antibodies and ancillaries are produced in accordance with FDA QSR 21 CFR Part 820 cGMP and ISO 13485:2003.

Cancer Diagnostics, Inc. was founded in 1998 with one product line-CDI's Tissue Marking Dyes; the original and first commercially available 7 dye color kit for identifying cancer margins. Since that time, we have grown to manufacture and provide thousands of products to thousands of Anatomical Pathology laboratories worldwide.

In 2013 we partnered with BioSB (Santa Barbara, CA) to enter the Immunohisto-chemistry (IHC) market with a full line of high quality IVD antibodies, detection kits, chromogens and ancillaries. BioSB was founded in 1998 by Dr. Heras after he left Dako and shares our vision for providing the customer with the highest quality, value, selection and support.

We know you have a choice in your IHC lab. We are excited to broaden your options and believe greater market choices lead to more competition, which leads to better products and better diagnostics.

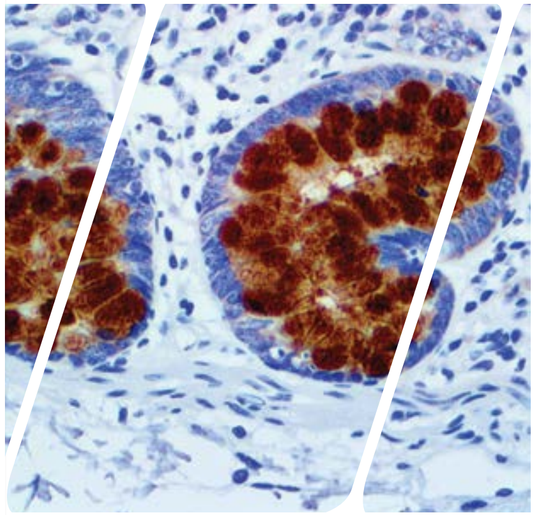
Quality, Value, Selection, Support.

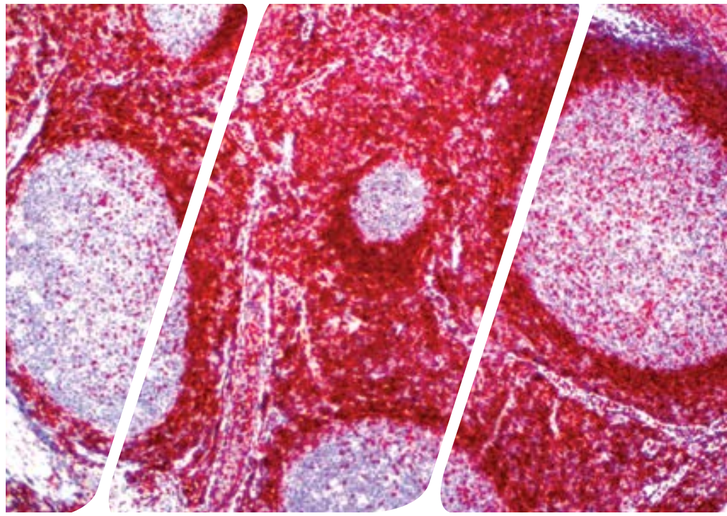
Welcome to Cancer Diagnostics, Inc. IHC Guide 2015.

Patrick O'Neill

Patrick O'Neill
Founder/CEO/President, Cancer Diagnostics, Inc.

Immunohistochemistry





QUICK GUIDE REFERENCE	ANTIBODY SOURCE
All Antibodies are noted with their regulatory designation	
IVD In Vitro Diagnostic Use	Mouse Monoclonal
ASR Analyte Specific Reagent	Rabbit Monoclonal
RUO Research Use Only	Rabbit Polyclonal

IHC Validation Guidelines and the Role of Tissue Microarrays

Written By **Andre Jordan Sanchez**, B.S., M.B.A Edited by **Dr. Alfonso Heras** and **Dr. Regan Fulton**

Background

It is no secret by now that immunohistochemistry has experienced a tremendous amount of growth since its initial applications as a research tool in the 1960's. Immunohistochemistry (IHC), is often referred to as the "gold standard" in tissue-based diagnostics. IHC is so clinically accepted that since 1963, the number of publications that include the term "immunohistochemistry" has increased 40 fold to over 122,000(1). Additionally, it is expected that by 2018, "tissue based diagnostics" technologies (the bulk of which is IHC) will grow about 7% annually (2).

A lot of recent growth can be attributed to recent advances in personalized medicine and immunotherapy. Human genome analysis has given researchers a better understanding of how genes play a role in cancer biology, and has led to explosive growth in the fields of proteomics, genomics, and bioinformatics. Easy access to genomic information has pushed clinics to integrate new diagnostic IHC testing into the laboratory setting, and subsequently pressured manufacturers to produce larger portfolios of biomarkers validated for use in IHC.

IHC Laboratories Today

Despite the tremendous growth in IHC as a vital clinical diagnostic technology, many challenges remain. Recent Medicare payments for anatomic pathology have drastically changed (3). In the wake of recent reimbursement cuts, there has been a continued industry emphasis of "doing more with less", which has put pressure on pathology labs to become more efficient.

The increased pressure to implement larger portfolios of clinically validated biomarkers while taking reduced reimbursement has lead anatomic pathology labs to consider switching to more cost-effective reagents. Switching vendors, adding new antibodies, and changing other variables in the IHC process led to a growing question; what guidelines should be followed when validating a new biomarker or reagent in the clinical laboratory? How does a lab ensure that it is following a standardized protocol to integrate said products? How many patient samples should be used when validating reagents for use in IHC?

IHC Validation Guidelines

To address these concerns, The College of American Pathologists (CAP) released new IHC Validation guidelines earlier this year (5). The new validation guidelines are meant to improve patient care, ensure accurate testing and standardize previous ambiguous requirements for IHC validation.

How were the new CAP validation guidelines established? An expert panel of pathologists and histotechnologists conducted a systematic review of more than 125 publications covering almost 1500 citations to see how IHC validation standards could be improved. Additionally, the new CAP guidelines may help provide a framework for validating molecular and genomic-based assays, which is particularly important as diagnostics (and IHC) becomes increasingly focused on immunotherapy and companion diagnostics technologies. (6)

Figure 1

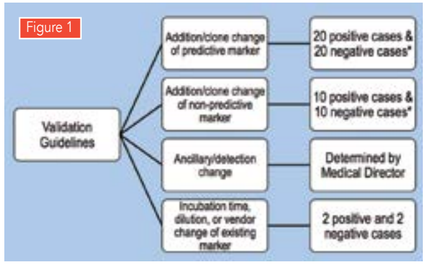


Figure 1 - Chart displaying IHC Validation Guidelines

* Justification for less than the noted amount of cases must be documented by lab director/manager.

So what are the Guidelines, and when should they be implemented? CAP recommends that all IHC tests be validated using one of the recommended guidelines before placing a product (antibody, reagent or ancillary) into clinical service (See Figure 1). The only exceptions to the CAP IHC validation guidelines are the ER, PgR and HER2 antibodies (which already have well defined guidelines set by ASCO & CAP).
Although the CAP guidelines are very thorough, there are some key take-away points for labs performing IHC in anatomic pathology. (7)

- 90% overall concordance should be achieved between a new test/biomarker and the old test/biomarker. A rate below 90% needs to be met with a laboratory investigation.
- If the marker is a non-predictive assay, 10 positive and 10 negative tissues should be tested. Should there be less than 20 cases (particularly for rare antigens), then the decision to use fewer cases should be documented.
- If the marker is a predictive assay, 20 positive and 20 negative cases should be tested. If there are less than 40 cases, the decision should be documented.
- If the marker has predictive and non-predictive characteristics, then treat the marker as a predictive assay and defer to the 40 case requirement (20 negative, 20 positive) as indicated.
- When switching a clone, revalidation should be treated as a new predictive (40 case) or non-predictive (20 case) assay.
- Incubation time, dilution, or manufacturer change (same clone) should be re-validated using 2 positive and 2 negative cases.
- Fixative, antigen retrieval, detection chemistry, tissue processing, equipment, relocation, and water supply changes require the laboratory medical director to establish the quantity of positive and negative cases to be used.
- **Tissue Micro Array's can be used when appropriate.**
  Initially, these changes may intimidate some lab managers, particularly those who operate smaller labs that are already adjusting to a changing reimburse ment landscape. However it is important to highlight a point made by the CAP IHC validation guidelines; Tissue Microarray's **can** be used to help laboratories meet the new guidelines. What is a Tissue Microarray?

So what is a Tissue Microarray? A Tissue Microarray (TMA) is a formalin-fixed paraffin-embedded tissue block comprised of several different tissues, or "cores". Each" core" represents a segment of tissue (usually chosen by the pathologist) taken from a tissue "donor block".

Multiple cores can be affixed to a slide, and generally vary in size from 0.6 to 7 mm in diameter. The quantity of cores selected for TMA's can vary tremendously, from as little as two to as many as hundreds of tissue cores on one slide. Tissue microarrays let a researcher, pathologist or technician improve workflow by the testing of several cores on one slide, instead of the more traditional one sample per slide. Additionally, cell lines can also be substituted for tissues, leading to the construction of a cell line microarray. Such a microarray may prove to be useful for labs that may need to validate infectious reagents where traditional tissue cases may be hard to procure, such as Heliobacter Pylori, Adenovirus, or SV-40 (See Figure 2).

Figure 2

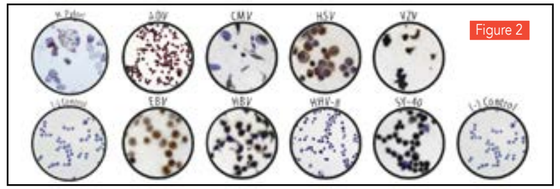


Figure 2 - Cell Line Microarray designed for use with Infectious reagent validation in Immunohistochemistry. Cell line Microarrays should include a negative control to avoid false staining.

Figure 3a

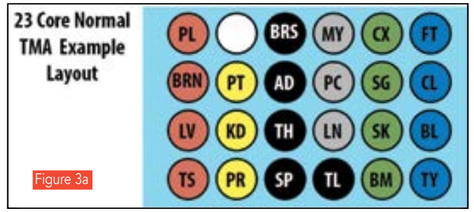


Figure 3a - 23 Core Normal TMA Layout composed of multiple tissues. This TMA is ideal for research or clinical biomarker discovery.

TMA Advantages

The advantages of TMA integration into an IHC laboratory can be readily seen, as it allows for a more robust workflow. Additionally, incorporation of TMA's also helps lab conserve often-expensive reagents, as a TMA with multiple cores requires a similar amount of reagent as a similar size whole tissue sample.

Another advantage of TMA's is their flexibility. Due to the fact that TMA's are composed of tissues from selected "donor blocks", the variables and permutations allowed by TMA construction are almost endless. Tissue microarrays can be customized to certain specifications and include any number of tissue samples per lab requirements. Donor tissues for TMA construction can be composed of one tissue type (e.g a TMA comprised solely of breast tissue) or a variety of different tissue types (e.g multi-normal Breast, Prostate, Liver, etc). Different types of TMA's may prove to be useful in different capacities. TMA's of varying tissue types are ideal for research or clinical biomarker discovery, while a TMA constructed from one tissue type may be ideal for quality control and validation (See Figure 3).

Figure 3b

PL - Placenta	Blank	BR - Breast	MY - Myometrium	CX - Cervix	FT - Fallopian Tube
BR - Brain	PT - Pituitary	AD - Adrenal	PC - Pancreas	SG - Salivary	CL - Colon
LV - Liver	KD - Kidney	TH - Thyroid	LN - Lung	SK - Skin	BL - Bladder
TS - Testis	PR - Prostate	SP - Spleen	TL - Tonsil	BM - Bone Marrow	TY- Thymus

Figure 3b - Corresponding TMA Map to Figure 3a. Normal Tissues validated with over 100 biomarkers used in IHC.

Figure 4 - Example images of IHC Stains taken from tissue microarray slides. From left to right: bcl-6 on tonsil core (DAB), CK 5/6 on skin core (AEC), and CD3 on tonsil core (DAB).

TMA's can also help reduce the burden on laboratories that are short-staffed yet have a need to re-evaluate IHC antibodies & reagents to cut costs. For example, if a new antibody released to the market is to be incorporated into a lab using CAP Guidelines, a technician could use two 20-core TMA slides (with 20 positive and 20 negative cases), instead of using 40 tissue slides that use whole tissue sections. This not only helps reduce reagent use and put less pressure on technical staff, but also reduces validation workload by about 95%.

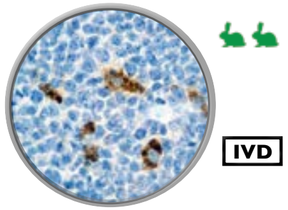
Addressing TMA Concerns

However, there are some concerns that typically arise when discussing the integration of tissue microarrays. Pathologists and technicians are accustomed to working with whole tissue sections, and the idea of using TMA's in a clinical setting can sometimes raise questions, particularly with tumor heterogeneity. Can a "core" of a tissue serve as a viable substitute for a whole tissue section? Although TMA cores are smaller in size than whole tissue sections, many studies have shown that tumor heterogeneity is not a significant concern with most cancers (8,9). Of course, it is important to note that there are some exceptions to this rule (such as Glioblastomas) (10). Another concern is the effort that goes into constructing a TMA. TMA's require a sometimes-burdensome workload on already overworked anatomic pathology laboratories. Constructing a TMA block that serves a specific purpose involves a lot of communication between a pathologist, histotechnician and staff. The amount of time, equipment, effort and expertise required to construct a TMA can prove to be a challenge for an already pressured lab.

TMA Integration and Conclusion

So how can a lab overcome challenges presented by validation and integrate TMA's into the laboratory? Commercially available TMA's that are cost-effective, IHC validated, and meet validation requirements present an opportunity for the modern anatomic pathology lab. Not only will such products allow anatomic pathology labs meet IHC CAP validation guidelines, but will help address concerns of tissue supply and quality control, particularly when trying to incorporate IHC reagents from vendors that may supply unique or cost-effective products. Additionally, TMA's allow laboratories to conduct more thorough biomarker discovery research, and see reactivity across several different tissue types on one slide. Tissue Microarrays already play a pivotal role in drug discovery, and with the list of clinically validated biomarkers in IHC growing, TMA's will undoubtedly play a greater role in today's diagnostic laboratory. (11) Interested in Cancer Diagnostics Tissue Microarrays for use in validation? See Page 136 for more information! Please refer to our website **cancerdiagnostics.com** for additional reference information.

Alpha-1-Antichymotrypsin



IHC of Alpha-1-Antichymotrypsin on an FFPE Tonsil Tissue

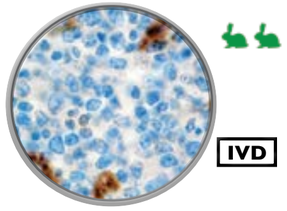
Alpha-1-Antichymotrypsin is a glycoprotein found in the alpha (1)-globulin region in human serum. It inhibits chymotrypsin-like proteinases in vivo and has cytotoxic killer-cell activity in vitro. The protein also has a role as an acute-phase protein and is active in the control of immunologic and inflammatory processes, and as a tumor marker. It is a member of the serpin superfamily.

Alpha-1-Antichymotrypsin antibody reacts with histiocytes and histiocytic neoplasms. Its major application is defining the presence of Alpha-1-Antichymotrypsin in histiocytes and tumors derived from them. In eosinophilic granuloma and malignant histiocytosis, the reaction for this marker is heterogeneous in intensity and distribution. In fibrous histiocytomas, under certain circumstances, a diffuse homogeneous reaction may be observed.

ANTIBODY TYPE	*Rabbit Polyclonal*
CLONE	*N/A*
ISOTYPE	*IgG*
CONTROL	*Tonsil, Lymph Node*
LOCALIZATION	*Cytoplasmic*

CAT. #	PRESENTATION	VOL/QTY
BSB 5001	Tinto Prediluted	3.0 ml
BSB 5002	Tinto Prediluted	7.0 ml
BSB 5003	Tinto Prediluted	15.0 ml
BSB 5004	Concentrated	0.1 ml
BSB 5005	Concentrated	0.5 ml
BSB 5006	Concentrated	1.0 ml
BSB 5007	control slides	5

A-1-Antitrypsin



IHC of Alpha-1- Antitrypsin on an FFPE Tonsil

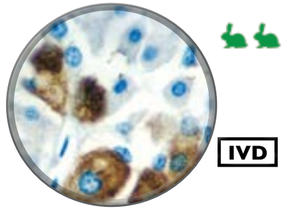
Alpha-1-Antitrypsin (A1AT) is a glycoprotein generally known as serum trypsin inhibitor. Alpha-1-Antitrypsin is also referred to as alpha-1 proteinase inhibitor (A1PI) because it is a serine protease inhibitor (serpin), inhibiting a wide variety of proteases. It protects tissues from enzymes of inflammatory cells, especially elastase, and has a reference range in blood of 1.5 - 3.5 gram/liter (in the U.S. the reference range is generally expressed as mg/dL or micromoles), but the concentration can rise many fold upon acute inflammation. In its absence, elastase is free to break down elastin, which contributes to the elasticity of the lungs, resulting in respiratory complications such as emphysema, or COPD (Chronic Obstructive Pulmonary Disease) in adults and cirrhosis in adults or children.

Alpha-1-Antitrypsin is considered to be very useful in the study of inherited AAT deficiency, benign and Malignant Hepatic Tumors and Yolk-Sac Carcinomas. Positive staining for A-1-Antitrypsin may also be used in detection of benign and malignant lesions of a histiocytic nature. Sensitivity and specificity of the results have made this antibody a useful tool in the screening of patients with Cryptogenic Cirrhosis or other forms of liver disease with portal fibrosis of unknown etiology.

ANTIBODY TYPE	*Rabbit Polyclonal*
CLONE	*N/A*
ISOTYPE	*IgG*
CONTROL	*Tonsil, Lymph Node*
LOCALIZATION	*Cytoplasmic*

CAT. #	PRESENTATION	VOL/QTY
BSB 5008	Tinto Prediluted	3.0 ml
BSB 5009	Tinto Prediluted	7.0 ml
BSB 5010	Tinto Prediluted	15.0 ml
BSB 5011	Concentrated	0.1 ml
BSB 5012	Concentrated	0.5 ml
BSB 5013	Concentrated	1.0 ml
BSB 5014	control slides	5

ACTH



IHC of ACTH on an FFPE Pituitary Tissue

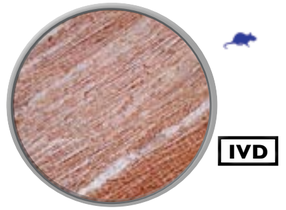
Adrenocorticotropic Hormone (ACTH or corticotropin) is a polypeptide hormone synthesized from POMC, (Pro-opiomelanocortin) and secreted from corticotropes in the anterior lobe of the pituitary gland in response to Corticotropin-releasing Hormone (CRH) released by the hypothalamus. It consists of 39 amino acids.

ACTH is a useful marker in the classification of pituitary tumors and the study of pituitary disease. It reacts with ACTH-producing cells (corticotrophs), as well as other tumors (e.g., some Small-Cell Carcinomas present in lung tissue) causing Paraneoplastic Syndromes by secreting ACTH.

ANTIBODY TYPE	*Rabbit Polyclonal*
CLONE	*N/A*
ISOTYPE	*IgG*
CONTROL	*Normal Pituitary*
LOCALIZATION	*Cytoplasmic*

CAT. #	PRESENTATION	VOL/QTY
BSB 5015	Tinto Prediluted	3.0 ml
BSB 5016	Tinto Prediluted	7.0 ml
BSB 5017	Tinto Prediluted	15.0 ml
BSB 5018	Concentrated	0.1 ml
BSB 5019	Concentrated	0.5 ml
BSB 5020	Concentrated	1.0 ml
BSB 5021	control slides	5

Actin, Muscle-Specific



IHC of Actin, Muscle-Specific on an FFPE Skeletal Muscle Tissue

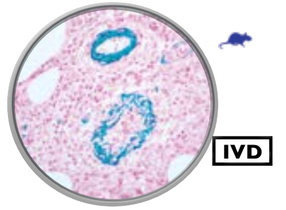
Actin is a globular-structural, 345 kDa protein that polymerizes in a helical fashion to form an actin filament (or microfilament). Actin filaments provide mechanical support for the cell, determine the cell shape, enable cell movements (through lamellipodia, filopodia, or pseudopodia); and participate in certain cell junctions, in cytoplasmic streaming and in contraction of the cell during cytokinesis. In muscle cells they play an essential role, along with myosin, in muscle contraction. In the cytosol, actin is predominantly bound to ATP, but can also bind to ADP.

This antibody recognizes actin of skeletal, cardiac, and smooth-muscle cells. It is not reactive with other mesenchymal cells except for myoepithelium. Muscle-Specific Actin recognizes alpha and gamma isotypes of all muscle groups. Non-muscle cells such as vascular endothelial cells and connective tissues are non-reactive. Neoplastic cells of non-muscle-derived tissue such as Carcinomas, Melanomas and Lymphomas are negative. This antibody is useful in the identification of rhabdoid cellular elements.

ANTIBODY TYPE	*Mouse Monoclonal*
CLONE	*HHF-35*
ISOTYPE	*IgG1/K*
CONTROL	*Skeletal Muscle*
LOCALIZATION	*Cytoplasmic*

CAT. #	PRESENTATION	VOL/QTY
BSB 5022	Tinto Prediluted	3.0 ml
BSB 5023	Tinto Prediluted	7.0 ml
BSB 5024	Tinto Prediluted	15.0 ml
BSB 5025	Concentrated	0.1 ml
BSB 5026	Concentrated	0.5 ml
BSB 5027	Concentrated	1.0 ml
BSB 5028	control slides	5

Actin, Smooth-Muscle



IHC of Actin, Smooth-Muscle on an FFPE Appendix Tissue

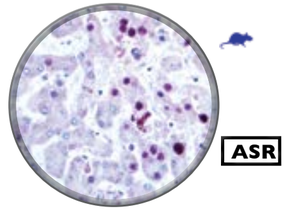
Actin is a major component of the cytoskeleton and is present in every cell type. Actins are highly conserved proteins that are involved in various types of cell motility and are ubiquitously expressed in all eukaryotic cells. In vertebrates 3 main groups of actin isoforms (alpha, beta and gamma) have been identified. The alpha actins are found in muscle tissues and are a major constituent of the contractile apparatus. The beta and gamma actins coexist in most cell types as components of the cytoskeleton and as mediators of internal cell motility.

Smooth-Muscle Actin antibody does not stain cardiac or skeletal muscle; however, it will stain myofibroblasts and myoepithelial cells. This antibody could be used together with Muscle-Specific Actin to distinguish Leiomyosarcoma from Rhabdomyosarcoma. In most cases of Rhabdomyosarcoma, this antibody gives negative results whereas M. S. Actin is positive in the rhabdomyoblasts. Leiomyosarcomas are positive with both M. S. Actin and S. M. Actin antibodies.

ANTIBODY TYPE	*Mouse Monoclonal*
CLONE	*ASM/H12*
ISOTYPE	*IgG2a/K*
CONTROL	*Appendix, Uterus*
LOCALIZATION	*Cytoplasmic*

CAT. #	PRESENTATION	VOL/QTY
BSB 5029	Tinto Prediluted	3.0 ml
BSB 5030	Tinto Prediluted	7.0 ml
BSB 5031	Tinto Prediluted	15.0 ml
BSB 5032	Concentrated	0.1 ml
BSB 5033	Concentrated	0.5 ml
BSB 5034	Concentrated	1.0 ml
BSB 5035	control slides	5

Adenovirus



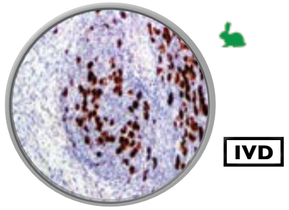
IHC of Adenovirus on a FFPE Infected Liver Tissue

Adenoviruses belong to the family Adenoviridae. They infect both humans and animals. Adenovirus was first isolated in human adenoids (tonsils), from which the name is derived. Adenoviruses are classified as group I under the Baltimore classification scheme. They are medium-sized (60-90 nm), non-enveloped icosahedral viruses containing double-stranded DNA.

ANTIBODY TYPE	*Mouse Monoclonal*
CLONE	*20/11 and 2/6*
ISOTYPE	*IgG1/K*
CONTROL	*Infected Tissue*
LOCALIZATION	*Cytoplasmic, Nuclear*

CAT. #	PRESENTATION	VOL/QTY
BSB 5036	Tinto Prediluted	3.0 ml
BSB 5037	Tinto Prediluted	7.0 ml
BSB 5038	Tinto Prediluted	15.0 ml
BSB 5039	Concentrated	0.1 ml
BSB 5040	Concentrated	0.5 ml
BSB 5041	Concentrated	1.0 ml
BSB 5042	control slides	5

ALK-1/CD246, RMab



IHC of ALK-1/CD246 on an FFPE Anaplastic Large Cell Lymphoma Tissue

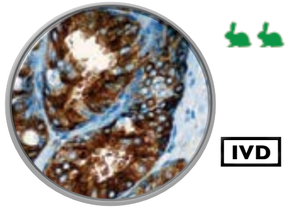
Anaplastic Lymphoma Kinase (ALK) was originally discovered as a Nucleophosmin (NPM)-ALK fusion protein. The ALK gene is on chromosome 2. Upon translocation between chromosome 2 and chromosome 5 t(2;5), the ALK gene fuses with the NPM gene. The chimeric product (NPM ALK) resulting from t(2;5) translocation is a protein of 80 kDa with the N terminal portion of NPM linked to the complete intracellular portion of ALK.

This antibody recognizes a human p80 protein, identified as a hybrid of the Anaplastic Lymphoma Kinase (ALK) gene and the Nucleophosmin (NPM) gene resulting from the t(2;5)(p23;q35) translocation found in a third of Large-Cell Lymphomas. ALK-1/CD246 is detected in 60% of Anaplastic Large-Cell Lymphomas and has proven to indicate a better prognosis in the ALK-1 (+) group.

ANTIBODY TYPE *Rabbit Monoclonal*
CLONE *RBT-ALK1*
ISOTYPE *IgG*
CONTROL *Anaplastic Large Cell Lymphoma*
LOCALIZATION *Cytoplasmic, Nuclear*

CAT. #	PRESENTATION	VOL/QTY
BSB 5043	Tinto Prediluted	3.0 ml
BSB 5044	Tinto Prediluted	7.0 ml
BSB 5045	Tinto Prediluted	15.0 ml
BSB 5046	Concentrated	0.1 ml
BSB 5047	Concentrated	0.5 ml
BSB 5048	Concentrated	1.0 ml
BSB 5049	control slides	5

Alpha-Fetoprotein



IHC of AFP on an FFPE Fetal Liver Tissue

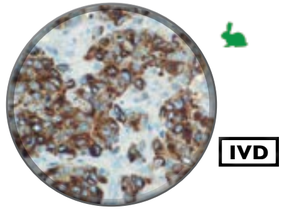
Alpha-fetoprotein (AFP) is a protein which in humans is encoded by the AFP gene. This gene encodes alpha-fetoprotein, a major plasma protein produced by the yolk sac and the liver during fetal life. This protein is thought to be the fetal counterpart of serum albumin, and the alpha-fetoprotein and albumin genes are present in tandem on chromosome 4.

Positive staining with this antibody is seen in hepatocytes of fetal liver and hepatoma. Since only traces of AFP are found in adult serum, elevated levels suggest either a benign or malignant lesion of the liver, a Yolk-Sac Carcinoma, or one of a few other tumors. In conjunction with elevated serum levels, AFP has been immunohistochemically demonstrated in Yolk-Sac Carcinomas in gonadal and extragonadal sites of hepatic malignancies and a few other neoplasms.

ANTIBODY TYPE *Rabbit Polyclonal*
CLONE *N/A*
ISOTYPE *IgG*
CONTROL *Fetal Liver, Hepatocellular Carcinoma*
LOCALIZATION *Cytoplasmic*

CAT. #	PRESENTATION	VOL/QTY
BSB 5050	Tinto Prediluted	3.0 ml
BSB 5051	Tinto Prediluted	7.0 ml
BSB 5052	Tinto Prediluted	15.0 ml
BSB 5053	Concentrated	0.1 ml
BSB 5054	Concentrated	0.5 ml
BSB 5055	Concentrated	1.0 ml
BSB 5056	control slides	5

Alpha-Fetoprotein, RMab



IHC of AFP on an FFPE Yolk-Sac Carcinoma Tissue

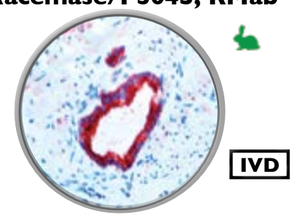
Alpha-fetoprotein (AFP) is a protein which in humans is encoded by the AFP gene. This gene encodes alpha-fetoprotein, a major plasma protein produced by the yolk sac and the liver during fetal life. This protein is thought to be the fetal counterpart of serum albumin, and the alpha-fetoprotein and albumin genes are present in tandem on chromosome 4.

Positive staining with this antibody is seen in hepatocytes of fetal liver and hepatoma. Since only traces of AFP are found in adult serum, elevated levels suggest either a benign or malignant lesion of the liver, a Yolk-Sac Carcinoma, or one of a few other tumors. In conjunction with elevated serum levels, AFP has been immunohistochemically demonstrated in Yolk-Sac Carcinomas in gonadal and extragonadal sites of hepatic malignancies and a few other neoplasms.

ANTIBODY TYPE *Rabbit Monoclonal*
CLONE *EP209**
ISOTYPE *IgG*
CONTROL *Fetal Liver, Hepatocellular Carcinoma*
LOCALIZATION *Cytoplasmic*

CAT. #	PRESENTATION	VOL/QTY
BSB 2384	Tinto Prediluted	3.0 ml
BSB 2385	Tinto Prediluted	7.0 ml
BSB 2386	Tinto Prediluted	15.0 ml
BSB 2387	Concentrated	0.1 ml
BSB 2388	Concentrated	0.5 ml
BSB 2389	Concentrated	1.0 ml
BSB 2390	control slides	5

Alpha-Methylacyl-CoA Racemase/P504S, RMab



IHC of AMACR on an FFPE Prostatic Adenocarcinoma Tissue

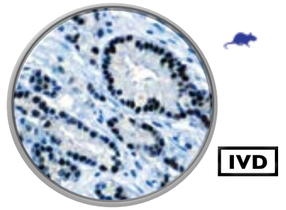
AMACR (P504S) is an acronym for the protein alpha-methylacyl CoA racemase that helps to metabolize certain fatty acids within the body. AMACR has been recently described as a prostate cancer-specific gene that encodes a protein involved in the beta-oxidation of branched chain fatty acids. Expression of AMACR protein is found in Prostatic Adenocarcinoma but not in benign prostatic tissue. It stains premalignant lesions of the prostate: High-Grade Prostatic Intraepithelial Neoplasia (PIN) and Atypical Adenomatous Hyperplasia. Several studies have suggested that AMACR can be used as a prostate cancer biomarker.

High expression of AMACR (P504S) protein is usually found in Prostatic Adenocarcinoma but not in benign prostatic tissue by immunohistochemical staining in paraffin-embedded tissues. Using AMACR as a positive marker along with basal-cell staining (34βE12 or p63) as a negative marker could help to confirm the diagnosis of small foci of Prostate Carcinoma on needle biopsies.

ANTIBODY TYPE *Rabbit Monoclonal*
CLONE *13H4*
ISOTYPE *IgG*
CONTROL *Prostatic Adenocarcinoma*
LOCALIZATION *Cytoplasmic*

CAT. #	PRESENTATION	VOL/QTY
BSB 5057	Tinto Prediluted	3.0 ml
BSB 5058	Tinto Prediluted	7.0 ml
BSB 5059	Tinto Prediluted	15.0 ml
BSB 5060	Concentrated	0.1 ml
BSB 5061	Concentrated	0.5 ml
BSB 5062	Concentrated	1.0 ml
BSB 5063	control slides	5

Androgen Receptor



IHC of Androgen Receptor on an FFPE Prostate Tissue

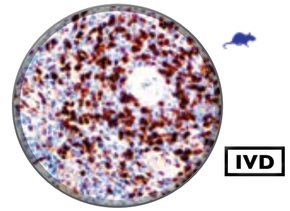
The androgen receptor (AR) is a type of nuclear receptor which is activated by binding of either of the androgenic hormones testosterone or dihydrotestosterone. The main function of the androgen receptor is as a DNA-binding transcription factor which regulates gene expression. However, the androgen receptor has additional functions independent of DNA binding. The AR signaling pathway plays a key role in development and function of male reproductive organs, including the prostate and epididymis. AR also plays a role in nonreproductive organs, such as muscle, hair follicles, and the brain.

This antibody reacts with the androgen receptor and also with the newly-described A form of the receptor. This antibody does not cross-react with estrogen, progesterone or glucocorticoid receptors. Abnormalities in the AR-signaling pathway have been linked to a number of diseases, including Prostate Cancer, Kennedy's Disease and male infertility.

ANTIBODY TYPE *Mouse Monoclonal*
CLONE *AR-D12*
ISOTYPE *IgG1*
CONTROL *Prostatic Adenocarcinoma*
LOCALIZATION *Nuclear*

CAT. #	PRESENTATION	VOL/QTY
BSB 6071	Tinto Prediluted	3.0 ml
BSB 6072	Tinto Prediluted	7.0 ml
BSB 6073	Tinto Prediluted	15.0 ml
BSB 6074	Concentrated	0.1 ml
BSB 6075	Concentrated	0.5 ml
BSB 6076	Concentrated	1.0 ml
BSB 6077	control slides	5

Annexin A1



IHC of Annexin A1 on an FFPE Hairy Cell Leukemia Tissue

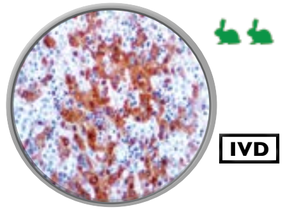
The protein Annexin A1 is encoded by the ANXA1 gene, which is upregulated in hairy cell leukemia. The NF-kB signal transduction pathway is exploited by cancerous cells to proliferate and avoid apoptosis. Annexin A1 inhibits that pathway by binding to the p65 subunit, thus making Annexin A1 of particular interest for use as a potential anti-cancer drug. It may also contain tumor suppressive and protective characteristics, which have been evidenced by its ability to protect against DNA damage induced by heat in breast cancer cells.

Annexin A1 is strongly expressed on the cell membrane and occasionally in the cytoplasm of tumor cells in 97% of samples from patients with hairy cell leukemia. By contrast, B-cell lymphomas other than hairy cell leukemia are ANXA1 negative. Thus, ANXA1 is a molecule specific to hairy cell leukemia that can be used to differentiate this disease from other B-cell lymphomas.

ANTIBODY TYPE *Mouse Monoclonal*
CLONE *MRQ-3*
ISOTYPE *IgG1*
CONTROL *Hairy Cell Leukemia*
LOCALIZATION *Cytoplasmic, Membranous*

CAT. #	PRESENTATION	VOL/QTY
BSB 6359	Tinto Prediluted	3.0 ml
BSB 6360	Tinto Prediluted	7.0 ml
BSB 6361	Tinto Prediluted	15.0 ml
BSB 6362	Concentrated	0.1 ml
BSB 6363	Concentrated	0.5 ml
BSB 6364	Concentrated	1.0 ml
BSB 6365	control slides	5

Arginase-1



IHC of Arginase-1 on an FFPE Hepatocellular Carcinoma Tissue

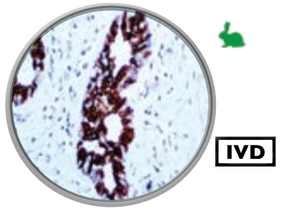
Arginase is the catalyst for the fifth and final step in the urea cycle, which is a series of biochemical reactions in mammals during which the body disposes of harmful ammonia. Arginase works to convert L-arginine into L-ornithine and urea. Arginase-1 is located primarily in the cytoplasm of the liver. Arginase consists of three tetramers, and the enzyme requires a two-molecule metal cluster of manganese in order to maintain proper function. These Mn2+ ions coordinate with water, orienting and stabilizing the molecule and allowing water to act as a nucelophile and attack L-arginine, hydrolyzing it into ornithine and urea.

Arginase-1 is abundantly expressed in the liver and it represents a sensitive and specific marker of benign and malignant hepatocytes. In sections of normal liver, anti-Arginase-1 produces strong, diffuse cytoplasmic reactivity in all hepatocytes throughout the lobule. In a small percentage of cases, patchy nuclear reactivity is also evident in hepatocytes along with the strong cytoplasmic reactivity. Hepatocellular carcinoma usually shows higher protein expression of ARG1 than normal liver cells.

ANTIBODY TYPE *Rabbit Polyclonal*
CLONE *N/A*
ISOTYPE *IgG*
CONTROL *Liver, Hepatocellular Carcinoma*
LOCALIZATION *Cytoplasmic, Nuclear*

CAT. #	PRESENTATION	VOL/QTY
BSB 6366	Tinto Prediluted	3.0 ml
BSB 6367	Tinto Prediluted	7.0 ml
BSB 6368	Tinto Prediluted	15.0 ml
BSB 6369	Concentrated	0.1 ml
BSB 6370	Concentrated	0.5 ml
BSB 6371	Concentrated	1.0 ml
BSB 6372	control slides	5

Bax, RMab



IHC of Bax on an FFPE Hodgkin's Lymphoma Tissue

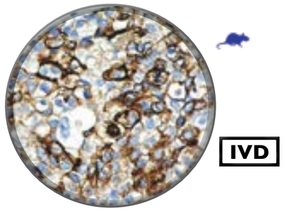
Bax is a protein of the bcl-2 gene family. It promotes apoptosis by competing with bcl-2 proper. The Bax gene contains a small promoter element that complements a binding domain on the multi-faceted p53 tumor suppressor. Wild-type p53 has been demonstrated to upregulate the transcription of a chimeric reporter plasmid, utilizing the consensus promoter sequence of Bax approx. 50-fold over mutant p53. Mutations in this consensus sequence eliminate transcription of the reporter gene. Thus, it is likely that p53 promotes Bax's apoptotic faculties in vivo as a primary transcription factor.

Bax exerts a pro-apoptotic rather than an anti-apoptotic effect on cells. Bax targets mitochondrial membranes, inducing mitochondrial damage and cell death in a caspase-independent manner. Bad plays a critical role in the Bax-mediated apoptosis pathway by dimerizing with BclxL, causing the displacement of Bax. The displacement of Bax allows apoptosis to proceed.

ANTIBODY TYPE *Rabbit Monoclonal*
CLONE *E63**
ISOTYPE *IgG*
CONTROL *Hodgkin's Lymphoma, Normal Breast, Tonsil*
LOCALIZATION *Cytoplasmic & Cell Membrane*

CAT. #	PRESENTATION	VOL/QTY
BSB 6078	Tinto Prediluted	3.0 ml
BSB 6079	Tinto Prediluted	7.0 ml
BSB 6080	Tinto Prediluted	15.0 ml
BSB 6081	Concentrated	0.1 ml
BSB 6082	Concentrated	0.5 ml
BSB 6083	Concentrated	1.0 ml
BSB 6084	control slides	5

BCA-225



IHC of BCA-225 on an FFPE Breast Carcinoma Tissue

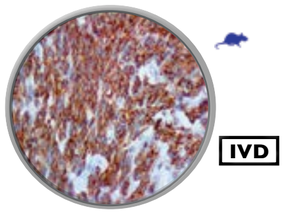
This antibody recognizes a human breast carcinoma-associated glycoprotein, BCA-225 (220-225 kDa). This protein differs in size and distribution from other Breast Carcinoma antigens. Unlike other carcinoma antibodies against Breast Carcinoma antigens, this antibody does not react with benign or malignant colonic tissues. Since this antigen is localized in malignancies of Breast Carcinomas and Carcinoma of the Uterine Cervix, it can be effectively used to identify metastatic Breast Carcinoma lesions.

Strong intracytoplasmic staining is seen in primary and metastatic Breast Carcinoma tissue, as well as in Cervical Carcinomas. Apical staining is seen in normal kidney, lung, Fallopian tube, liver, skin (eccrine sweat glands) and uterus. Similar staining patterns are observed in lung, ovarian, and endometrial cancers. Carcinomas of the colon, stomach, prostate, urinary bladder, liver, pancreas, thyroid, and parotid are negative, as are Sarcomas and Lymphoid Cancers.

ANTIBODY TYPE *Mouse Monoclonal*
CLONE *Cu-18*
ISOTYPE *IgG1/K*
CONTROL *Breast Carcinoma*
LOCALIZATION *Cytoplasmic*

CAT. #	PRESENTATION	VOL/QTY
BSB 5064	Tinto Prediluted	3.0 ml
BSB 5065	Tinto Prediluted	7.0 ml
BSB 5066	Tinto Prediluted	15.0 ml
BSB 5067	Concentrated	0.1 ml
BSB 5068	Concentrated	0.5 ml
BSB 5069	Concentrated	1.0 ml
BSB 5070	control slides	5

bcl-2



IHC of bcl2- on an FFPE Follicular Lymphoma Tissue

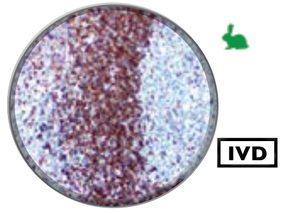
bcl-2 is an integral outer mitochondrial membrane protein that blocks the apoptotic death of some cells such as lymphocytes. Constitutive expression of bcl-2, such as in the case of translocation of bcl-2 to Ig heavy-chain loci, is thought to be the cause of Follicular Lymphoma.

Anti-bcl-2 has shown consistent negative reaction on reactive germinal centers and positive staining of neoplastic follicles in Follicular Lymphoma. Consequently, this antibody is valuable when distinguishing between reactive and neoplastic follicular proliferation in lymph node biopsies. This antibody may also be used in distinguishing between those Follicular Lymphomas that express bcl-2 protein and the small number in which the neoplastic cells are bcl-2-negative. Anti-bcl-2 has been used as a predictive biomarker for recurrence of Cancer of the Breast and Non-Small-Cell Carcinoma of the Lung.

ANTIBODY TYPE *Mouse Monoclonal*
CLONE *BCL2/A4*
ISOTYPE *IgG1/K*
CONTROL *Tonsil, Lymph Node*
LOCALIZATION *Cytoplasmic*

CAT. #	PRESENTATION	VOL/QTY
BSB 5071	Tinto Prediluted	3.0 ml
BSB 5072	Tinto Prediluted	7.0 ml
BSB 5073	Tinto Prediluted	15.0 ml
BSB 5074	Concentrated	0.1 ml
BSB 5075	Concentrated	0.5 ml
BSB 5076	Concentrated	1.0 ml
BSB 5077	control slides	5

bcl-2, RMab



IHC of bcl-2 on an FFPE Tonsil Tissue

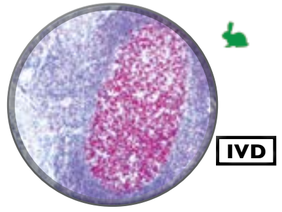
bcl-2 is an integral outer mitochondrial membrane protein that regulates apoptosis of some cells such as lymphocytes. Constitutive expression of bcl-2, such as in the case of translocation of bcl-2 to Ig heavy-chain loci, is thought to be the cause of Follicular Lymphoma.

Anti-bcl-2 has shown consistent negative reaction on reactive germinal centers and positive staining of neoplastic follicles in Follicular Lymphoma. Consequently, this antibody is valuable when distinguishing between reactive and neoplastic follicular proliferation in lymph node biopsies. This antibody may also be used in distinguishing between those Follicular Lymphomas that express bcl-2 protein and the small number in which the neoplastic cells are bcl-2-negative. Anti-bcl-2 has been used as a predictive biomarker for recurrence of Cancer of the Breast and Non-Small-Cell Carcinoma of the Lung.

ANTIBODY TYPE *Rabbit Monoclonal*
CLONE *EP36**
ISOTYPE *IgG*
CONTROL *Tonsil, Lymph Node*
LOCALIZATION *Cytoplasmic*

CAT. #	PRESENTATION	VOL/QTY
BSB 6541	Tinto Prediluted	3.0 ml
BSB 6542	Tinto Prediluted	7.0 ml
BSB 6543	Tinto Prediluted	15.0 ml
BSB 6544	Concentrated	0.1 ml
BSB 6545	Concentrated	0.5 ml
BSB 6546	Concentrated	1.0 ml
BSB 6547	control slides	5

bcl-6, RMab



IHC of bcl-6 on an FFPE Tonsil Tissue

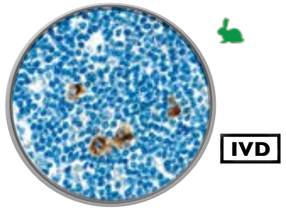
bcl-6 is a transcriptional regulator gene which codes for a 706-amino-acid nuclear zinc finger protein. Antibodies to this protein stain the germinal center cells in lymphoid follicles, follicular cells and interfollicular cells in Follicular Lymphoma, Diffuse Large B-Cell Lymphomas, Burkitt's Lymphoma, and the majority of the Reed-Sternberg cells in Nodular Lymphocyte-Predominant Hodgkin's Disease.

bcl-6 is also useful in identifying neoplastic cells in cases of nodular Lymphocyte-Predominant Hodgkin's Disease. In contrast, anti-bcl-6 rarely stains Mantle-Cell Lymphoma and MALT Lymphoma. bcl-6 expression is seen in approximately 45% of CD30+ Anaplastic Large-Cell Lymphomas but is consistently absent in other peripheral T-cell Lymphomas.

ANTIBODY TYPE *Rabbit Monoclonal*
CLONE *RBT-bcl6*
ISOTYPE *IgG*
CONTROL *Tonsil, Lymph Node*
LOCALIZATION *Nuclear*

CAT. #	PRESENTATION	VOL/QTY
BSB 5078	Tinto Prediluted	3.0 ml
BSB 5079	Tinto Prediluted	7.0 ml
BSB 5080	Tinto Prediluted	15.0 ml
BSB 5081	Concentrated	0.1 ml
BSB 5082	Concentrated	0.5 ml
BSB 5083	Concentrated	1.0 ml
BSB 5084	control slides	5

bcl-X, RMab



IHC of Bcl-X on an FFPE Hodgkin's Lymphoma Tissue

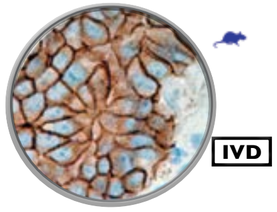
bcl-X, or bcl-2-like 1 protein, a member of the bcl-2 protein family, inhibits cell death, or apoptosis and functions as a regulator of apoptosis. bcl-X has two isoforms: bcl-XL (Long), a 241-amino acid protein; and bcl-XS (Short), a 178-amino acid protein lacking a 63-amino acid domain that is well conserved among members of the bcl-2 family.

bcl-X is typically present in the cytosol in association with the mitochondrial membrane. bcl-XL forms heterodimers with various proteins, including Bax, Bak and bcl-2. It has been found that heterodimerization with Bax does not seem to be required for anti-apoptotic activity.

ANTIBODY TYPE	*Rabbit Monoclonal*
CLONE	*EP94**
ISOTYPE	*IgG*
CONTROL	*Hodgkin's Lymphoma*
LOCALIZATION	*Cytoplasmic and Cell/ Cytoplasmic, Nuclear Membrane*

CAT. #	PRESENTATION	VOL/QTY
BSB 6085	Tinto Prediluted	3.0 ml
BSB 6086	Tinto Prediluted	7.0 ml
BSB 6087	Tinto Prediluted	15.0 ml
BSB 6088	Concentrated	0.1 ml
BSB 6089	Concentrated	0.5 ml
BSB 6090	Concentrated	1.0 ml
BSB 6091	control slides	5

Beta-Catenin



IHC of Beta-Catenin on an FFPE Breast Tissue

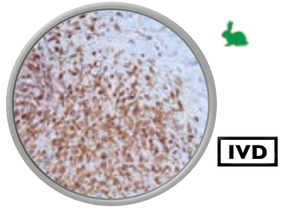
Beta-Catenin is a subunit of the Cadherin protein complex. Cadherins are a type of protein normally expressed on the surface of certain cells. Specifically, Beta Cateinin is a 92 kDa protein normally found in the cytoplasm of the cell in the sub-membranous location. This protein is associated with E-Cadherin and may be essential for the function of E-Cadherin.

Mutations in the Beta-Catenin gene result in the nuclear accumulation of this protein. Nuclear accumulation of this protein has been demonstrated in Fibromatosis lesions of the breast and abdomen, and therefore is useful in differentiating this lesion from other spindle-cell lesions that may occur in these locations.

ANTIBODY TYPE	*Mouse Monoclonal*
CLONE	*14*
ISOTYPE	*IgG1*
CONTROL	*Fibromatosis Breast, Abdomen*
LOCALIZATION	*Nuclear, Cytoplasmic, Membranous*

CAT. #	PRESENTATION	VOL/QTY
BSB 5085	Tinto Prediluted	3.0 ml
BSB 5086	Tinto Prediluted	7.0 ml
BSB 5087	Tinto Prediluted	15.0 ml
BSB 5088	Concentrated	0.1 ml
BSB 5089	Concentrated	0.5 ml
BSB 5090	Concentrated	1.0 ml
BSB 5091	control slides	5

Beta-Catenin, RMab



IHC of Beta-Catenin on an FFPE Breast Fibromatosis Tissue

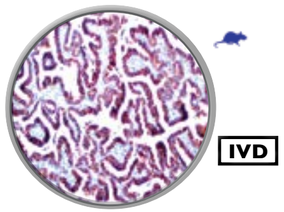
eta-Catenin is a subunit of the Cadherin protein complex. Cadherins are a type of protein normally expressed on the surface of certain cells. Specifically, Beta-Cateinin is a 92 kDa protein normally found in the cytoplasm of the cell in the sub-membranous location. This protein is associated with E-Cadherin and may be essential for the function of E-Cadherin.

Mutations in the Beta-Catenin gene result in the nuclear accumulation of this protein. Nuclear accumulation of this protein has been demonstrated in Fibromatosis lesions of the breast and abdomen, and therefore is useful in differentiating this lesion from other spindle-cell lesions that may occur in these locations.

ANTIBODY TYPE	*Rabbit Monoclonal*
CLONE	*EP35**
ISOTYPE	*IgG*
CONTROL	*Fibromatosis Breast, Abdomen*
LOCALIZATION	*Nuclear, Cytoplasmic, Membranous*

CAT. #	PRESENTATION	VOL/QTY
BSB 2042	Tinto Prediluted	3.0 ml
BSB 2043	Tinto Prediluted	7.0 ml
BSB 2044	Tinto Prediluted	15.0 ml
BSB 2045	Concentrated	0.1 ml
BSB 2046	Concentrated	0.5 ml
BSB 2047	Concentrated	1.0 ml
BSB 2048	control slides	5

BG8 LewisY



IHC of BG8 LewisY an FFPE Lung Adenocarcinoma Tissue

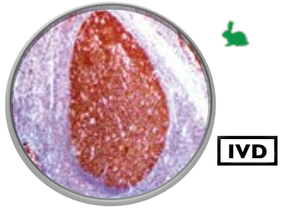
Blood group antigens have been examined as potential discriminators between Pulmonary Adenocarcinoma (PACA) and Epithelioid Mesothelioma (EM). LewisY is the only one of these that appears to have some merit. BG8 is raised from the SK-LU-3 lung cancer line and is able to distinguish between PACA and EM. Studies of 231 cases of PACA and 197 cases of EM have shown that sensitivity and specificity for PACA were both 93%. It has been reported that sensitivity of nonmesothelial antigens for Adenocarcinoma is organ dependent, with BG8 Lewis performing at 98% in the breast cancer group, and 100% in the lung cancer group. The specificity of the nonmesothelial (non-EM) antigens for adenocarcinoma was 98% for BG8.

It has been concluded using logical regression analysis that a three-antibody immunohistochemical panel including Calretinin, BG8, and MOC-31 would provide 96% sensitivity and specificity for distinguishing EM from Adenocarcinoma in a variety of sources (lung, ovary, breast, stomach).

ANTIBODY TYPE	*Mouse Monoclonal*
CLONE	*F3*
ISOTYPE	*IgM*
CONTROL	*Lung Adenocarcinoma*
LOCALIZATION	*Cytoplasmic*

CAT. #	PRESENTATION	VOL/QTY
BSB 6373	Tinto Prediluted	3.0 ml
BSB 6374	Tinto Prediluted	7.0 ml
BSB 6375	Tinto Prediluted	15.0 ml
BSB 6376	Concentrated	0.1 ml
BSB 6377	Concentrated	0.5 ml
BSB 6378	Concentrated	1.0 ml
BSB 6379	control slides	5

BOB.1, RMab



IHC of BOB.1 on an FFPE Tonsil Tissue

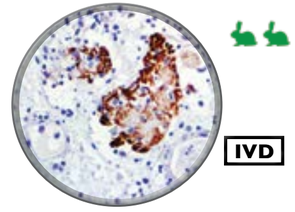
The BOB.1 protein is a co-activator that interacts with OCT-1 and/or OCT-2 transcription factors, and is critical in germinal center formation and immunoglobulin production. The strongest expression of BOB.1 is found in the germinal center, mantle-zone B cells, and plasma cells. Because BOB.1/OBF.1 are germinal center derived, L&H cells in Nodular Lymphocyte Predominant Hodgkin's Lymphoma are consistently immunoreactive for BOB.1. Conversely, the Hodgkin/ Reed-Sternberg cells in classical Hodgkin's Lymphoma express only one of the two proteins, or express none at all.

In Diffuse Large B-cell Lymphomas, the highest expression levels for BOB.1/OBF.1 are reported in Follicular Center Lymphomas, Diffuse Large B-cell Lymphomas, and Burkitt Lymphomas. B-CLL, MALT-type, and Mantle Cell Lymphomas score negative or display a heterogenous/weaker activity. The strong nuclear expression of BOB.1 and OCT-2 by Germinal Center Derived Lymphomas makes these antibodies a novel class of broad spectrum B-lineage immunohistochemical markers in the differential diagnosis of Lymphomas, specifically between Primary Mediastinal B-cell Lymphoma from classical Hodgkin's Disease.

ANTIBODY TYPE	*Rabbit Monoclonal*
CLONE	*EP114**
ISOTYPE	*IgG*
CONTROL	*Tonsil*
LOCALIZATION	*Nuclear*

CAT. #	PRESENTATION	VOL/QTY
BSB 6380	Tinto Prediluted	3.0 ml
BSB 6381	Tinto Prediluted	7.0 ml
BSB 6382	Tinto Prediluted	15.0 ml
BSB 6383	Concentrated	0.1 ml
BSB 6384	Concentrated	0.5 ml
BSB 6385	Concentrated	1.0 ml
BSB 6386	control slides	5

C3d



IHC of C3d on an FFPE Rejected Kidney Transplant Tissue

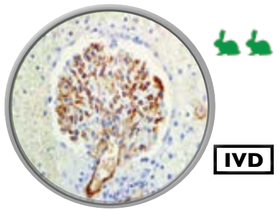
Complement component 3, or C3, is a protein of the immune system that plays a central role in the complement system and contributes to innate immunity. Its activation is required for both classical and alternative complement activation pathways. C3d deposition in the renal transplant PTCs (peritubular capillaries) is indicative of AR (acute rejection) with subsequent high probability of graft loss.

Anti-C3d combined with anti-C4d can be utilized as a tool for diagnosis of AR and warrant prompt and aggressive anti-rejection treatment. C3d is also a helpful adjunct in the diagnosis of bullous pemphigoid (BP) and perhaps pemphigus vulgaris (PV), especially in the cases in which only formalin-fixed, paraffin-embedded tissues are available.

ANTIBODY TYPE	*Rabbit Polyclonal*
CLONE	*N/A*
ISOTYPE	*IgG*
CONTROL	*Rejected Kidney Transplant*
LOCALIZATION	*Cytoplasmic, Membranous*

CAT. #	PRESENTATION	VOL/QTY
BSB 6387	Tinto Prediluted	3.0 ml
BSB 6388	Tinto Prediluted	7.0 ml
BSB 6389	Tinto Prediluted	15.0 ml
BSB 6390	Concentrated	0.1 ml
BSB 6391	Concentrated	0.5 ml
BSB 6392	Concentrated	1.0 ml
BSB 6393	control slides	5

C4D



IHC of C4d on an FFPE Rejected Kidney Transplant Tissue

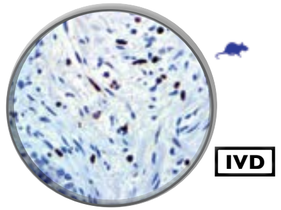
Complement component 4, or C4, plays a central role in the complement system. C4d is the final proteolytic remnant of deposited C4b on endothelium and remains covalently attached to endothelium for little more than a week. It is easily detectable by immunohistochemistry.

Anti-C4d combined with anti-C3d can be utilized as a tool for diagnosis of AR (Acute Rejection) and warrant prompt and aggressive anti-rejection treatment. C4d can be detected in peritubular capillaries in both chronic renal allograft rejection as well as hyperacute rejection, acute vascular rejection, acute cellular rejection, and borderline rejection. It has been shown to be a significant predictor of transplant kidney graft survival and is an aid in treating acute rejection.

ANTIBODY TYPE *Rabbit Polyclonal*
CLONE *N/A*
ISOTYPE *IgG*
CONTROL *Tonsil, Lymph Node, Rejected Kidney Transplant*
LOCALIZATION *Cytoplasmic, Membranous*

CAT. #	PRESENTATION	VOL/QTY
BSB 6394	Tinto Prediluted	3.0 ml
BSB 6395	Tinto Prediluted	7.0 ml
BSB 6396	Tinto Prediluted	15.0 ml
BSB 6397	Concentrated	0.1 ml
BSB 6398	Concentrated	0.5 ml
BSB 6399	Concentrated	1.0 ml
BSB 6400	control slides	5

c-Myc



IHC of c-Myc on an FFPE Prostatic Adenocarcinoma Tissue

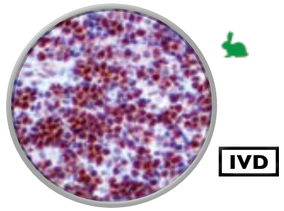
Oncogene-encoded proteins c-Myc, n-Myc, and l-Myc function in cell proliferation, differentation and neoplastic disease. A mutated version of Myc is found in many cancers, which causes Myc to be constitutively expressed. This leads to the unregulated expression of many genes, some of which are involved in cell proliferation, and results in the formation of cancer. c-Myc is a transcription factor and is a proto-oncogene that is the focal point in cell cycle regulation, metabolism, apoptosis, differentiation, cell adhesion, and tumorigenesis.

A common human translocation involving Myc is t(8;14), which is criticial to the development of most cases of Burkitt's Lymphoma. Malfunctions in Myc have also been found in carcinoma of the cervix, colon, breast, lung, and stomach.

ANTIBODY TYPE *Mouse Monoclonal*
CLONE *9E10*
ISOTYPE *IgG1*
CONTROL *Burkitt Lymphoma, Lung Cancer, Prostate Cancer*
LOCALIZATION *Nuclear, Cytoplasmic*

CAT. #	PRESENTATION	VOL/QTY
BSB 6863	Tinto Prediluted	3.0 ml
BSB 6864	Tinto Prediluted	7.0 ml
BSB 6865	Tinto Prediluted	15.0 ml
BSB 6866	Concentrated	0.1 ml
BSB 6867	Concentrated	0.5 ml
BSB 6868	Concentrated	1.0 ml
BSB 6869	control slides	5

c-Myc, RMab



IHC of c-Myc on an FFPE Burkitt's Lymphoma Tissue

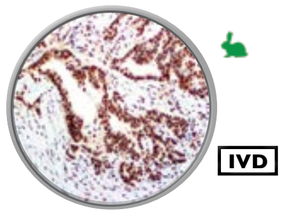
Oncogene-encoded proteins c-Myc, n-Myc, and l-Myc function in cell proliferation, differentation and neoplastic disease. A mutated version of Myc is found in many cancers, which causes Myc to be constitutively expressed. This leads to the unregulated expression of many genes, some of which are involved in cell proliferation, and results in the formation of cancer. c-Myc is a transcription factor and is a proto-oncogene that is the focal point in cell cycle regulation, metabolism, apoptosis, differentiation, cell adhesion, and tumorigenesis.

A common human translocation involving Myc is t(8;14), which is criticial to the development of most cases of Burkitt's Lymphoma. Malfunctions in Myc have also been found in carcinoma of the cervix, colon, breast, lung, and stomach.

ANTIBODY TYPE *Rabbit Monoclonal*
CLONE *EP121**
ISOTYPE *IgG*
CONTROL *Burkitt Lymphoma, Lung Cancer, Prostate Cancer*
LOCALIZATION *Nuclear, Cytoplasmic*

CAT. #	PRESENTATION	VOL/QTY
BSB 6576	Tinto Prediluted	3.0 ml
BSB 6577	Tinto Prediluted	7.0 ml
BSB 6578	Tinto Prediluted	15.0 ml
BSB 6579	Concentrated	0.1 ml
BSB 6580	Concentrated	0.5 ml
BSB 6581	Concentrated	1.0 ml
BSB 6582	control slides	5

c-Met, RMab



IHC of c-Met on an FFPE Breast Carcinoma Tissue

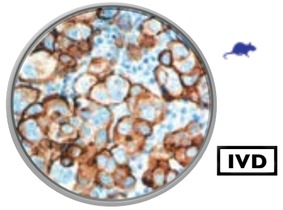
c-Met is a proto-oncogene that encodes hepatocyte growth factor receptor (HGFR). The HGFR protein possesses tyrosinase-kinase activity. MET is a membrane receptor that is essential for embryonic development and wound healing, with its only known ligand being hepatocyte growth factor (HGF). Met is normally expressed by cells of epithelial origin, while expression of HGF is restricted to cells of mesenchymal origin. Upon HGF stimulation, MET induces several biological responses that collectively give rise to a program known as invasive growth.

MET is deregulated in many types of human malignancies, including cancers of kidney, liver, stomach, breast, and brain. Normally, only stem cells and progenitor cells express MET, which allows these cells to grow invasively in order to generate new tissues in an embryo or regenerate damaged tissues in an adult. However, cancer stem cells are thought to hijack the ability to express MET, and thus become the cause of cancer persistence and spread to other sites in the body (metastasis).

ANTIBODY TYPE *Rabbit Monoclonal*
CLONE *EP1454Y**
ISOTYPE *IgG*
CONTROL *Breast and Colon Carcinomas*
LOCALIZATION *Membranous, Nuclear*

CAT. #	PRESENTATION	VOL/QTY
BSB 6583	Tinto Prediluted	3.0 ml
BSB 6584	Tinto Prediluted	7.0 ml
BSB 6585	Tinto Prediluted	15.0 ml
BSB 6586	Concentrated	0.1 ml
BSB 6587	Concentrated	0.5 ml
BSB 6588	Concentrated	1.0 ml
BSB 6589	control slides	5

CA-125



IHC of CA-125 on an FFPE Ovarian Carcinoma Tissue

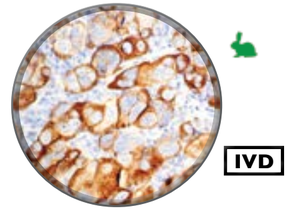
CA-125 reacts with malignant ovarian epithelial cells. CA-125 also reacts with antigens in Seminal Vesicle Carcinoma and Anaplastic Lymphoma.

In adult tissues, CA-125 is found in epithelial cells of Fallopian tube, endometrium and endocervix, pancreas, colon, gall bladder, stomach, kidney, apocrine sweat gland, and mammary gland. It is also found in mesothelial cell lining of pleura, pericardium and peritoneum. It is found in ovarian tumors of serous, endometrioid or clear-cell types and Adenocarcinomas of Mullerian type.

ANTIBODY TYPE *Mouse Monoclonal*
CLONE *OC125*
ISOTYPE *IgG1/K*
CONTROL *Ovarian Carcinoma, Epithelioid Mesothelioma*
LOCALIZATION *Cytoplasmic and Membranous*

CAT. #	PRESENTATION	VOL/QTY
BSB 5092	Tinto Prediluted	3.0 ml
BSB 5093	Tinto Prediluted	7.0 ml
BSB 5094	Tinto Prediluted	15.0 ml
BSB 5095	Concentrated	0.1 ml
BSB 5096	Concentrated	0.5 ml
BSB 5097	Concentrated	1.0 ml
BSB 5098	control slides	5

CA-125, RMab



IHC of CA-125 on an FFPE Ovarian Carcinoma Tissue

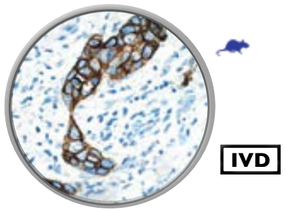
CA-125 reacts with malignant ovarian epithelial cells. CA-125 also reacts with antigens in Seminal Vesicle Carcinoma and Anaplastic Lymphoma.

In adult tissues, CA-125 is found in epithelial cells of Fallopian tube, endometrium and endocervix, pancreas, colon, gall bladder, stomach, kidney, apocrine sweat gland, and mammary gland. It is also found in mesothelial cell lining of pleura, pericardium and peritoneum. It is found in ovarian tumors of serous, endometrioid or clear-cell types and Adenocarcinomas of Mullerian type.

ANTIBODY TYPE *Rabbit Monoclonal*
CLONE *EP48**
ISOTYPE *IgG*
CONTROL *Ovarian Carcinoma, Epithelioid Mesothelioma*
LOCALIZATION *Cytoplasmic and Membranous*

CAT. #	PRESENTATION	VOL/QTY
BSB 6401	Tinto Prediluted	3.0 ml
BSB 6402	Tinto Prediluted	7.0 ml
BSB 6403	Tinto Prediluted	15.0 ml
BSB 6404	Concentrated	0.1 ml
BSB 6405	Concentrated	0.5 ml
BSB 6406	Concentrated	1.0 ml
BSB 6407	control slides	5

CA15-3



IHC of CA15-3 on an FFPE Breast Tissue

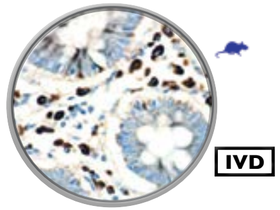
This antibody has been used for evaluating the primary site of a metastatic carcinoma of unknown origin and distinguishing between benign and malignant lesions. It is believed that CA15-3 reacts primarily with the DF3-antigen, a 300 kDa mucin-like glycoprotein present on the apical border of secretory mammary epithelial cells.

CA15-3 has been detected with immunohistochemistry in a wide spectrum of carcinomas, including Breast Carcinomas (ductal and lobular), Sarcomas (Synovial Sarcoma and Malignant Fibrous Histiocytomas), and Lung Carcinomas. CA15-3 can be used as a supplementary marker for epithelial differentiation. CA15-3 does not stain Melanomas or Ewing's Sarcomas. Approximately 30% of Hepatocellular Carcinomas are positive for CA15-3.

ANTIBODY TYPE	*Mouse Monoclonal*
CLONE	*DF3*
ISOTYPE	*IgG1*
CONTROL	*Breast, Pancreas, Salivary Gland*
LOCALIZATION	*Cytoplasmic and Membranous*

CAT. #	PRESENTATION	VOL/QTY
BSB 5099	Tinto Prediluted	3.0 ml
BSB 5100	Tinto Prediluted	7.0 ml
BSB 5101	Tinto Prediluted	15.0 ml
BSB 5102	Concentrated	0.1 ml
BSB 5103	Concentrated	0.5 ml
BSB 5104	Concentrated	1.0 ml
BSB 5105	control slides	5

CA19-9



IHC of CA19-9 on an FFPE Salivary Gland Tissue

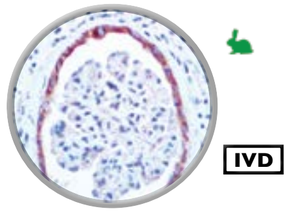
CA19-9 (carbohydrate antigen 19-9 or sialylated Lewis (a) antigen) is a blood test from the tumor marker category. It was discovered in patients with Colon Cancer and Pancreatic Cancer in 1981. Increased levels of CA19-9 are also found in non-malignant conditions, such as Mirizzi's Syndrome and diseases of the bile duct and liver. The main use of CA19-9 is to determine whether a pancreatic tumor is secreting it; if that is the case, then the levels should fall when the tumor is treated, and they may rise again if the disease recurs.

CA19-9 antigen is highly expressed in Gastrointestinal (gastric, pancreatic, and colonic) Adenocarcinomas and salivary gland Mucoepidermoid Carcinomas. CA19-9 is usually not reactive with breast, kidney, and prostate Carcinomas, but is reactive with sialylated Lea-active pentasaccharide (sialylated lacto-N-fucopentaose II), which is enzymatically synthesized by sialylation of Type 1 carbohydrate chains.

ANTIBODY TYPE	*Mouse Monoclonal*
CLONE	*121SLE*
ISOTYPE	*IgM*
CONTROL	*Colon, Salivary Gland*
LOCALIZATION	*Cytoplasmic*

CAT. #	PRESENTATION	VOL/QTY
BSB 5106	Tinto Prediluted	3.0 ml
BSB 5107	Tinto Prediluted	7.0 ml
BSB 5108	Tinto Prediluted	15.0 ml
BSB 5109	Concentrated	0.1 ml
BSB 5110	Concentrated	0.5 ml
BSB 5111	Concentrated	1.0 ml
BSB 5112	control slides	5

Cadherin-6, RMab



IHC of Cadherin-6 on an FFPE Kidney Tissue

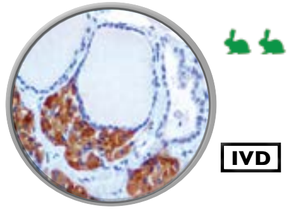
Cadherin-6 is a member of the cadherin superfamily. Cadherins are membrane glycoproteins that mediate homophilic cell-cell adhesion and play critical roles in cell differentiation and morphogenesis. It is a type I cadherin and may play a role in kidney development as well as endometrium and placenta formation.

Cadherin-6 is highly expressed in kidney and the central nervous system. It has been found to be related to fetal kidney development and has been identified as a major cadherin in renal proximal tubules where conventional renal cell carcinoma originates. The expression of Cadherin-6 is associated with tumor progression in renal cell carcinoma.

ANTIBODY TYPE	*Rabbit Monoclonal*
CLONE	*EP217**
ISOTYPE	*IgG*
CONTROL	*Kidney, Renal Cell Carcinoma*
LOCALIZATION	*Membranous*

CAT. #	PRESENTATION	VOL/QTY
BSB 2391	Tinto Prediluted	3.0 ml
BSB 2392	Tinto Prediluted	7.0 ml
BSB 2393	Tinto Prediluted	15.0 ml
BSB 2394	Concentrated	0.1 ml
BSB 2395	Concentrated	0.5 ml
BSB 2396	Concentrated	1.0 ml
BSB 2397	control slides	5

Calcitonin



IHC of Calcitonin on an FFPE Thyroid Tissue

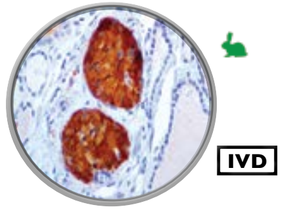
Calcitonin is a 32-amino acid polypeptide hormone that is produced in humans primarily by C-cells located in the thyroid, and in many other animals in the ultimobranchial gland. It acts to reduce blood calcium (Ca2+), opposing the effects of parathyroid hormone (PTH). It has been found in fish, reptiles, birds, and mammals. Its importance in humans has not been as well established as in other animals.

Immunohistochemical staining with Calcitonin antibody has proven to be an effective way of demonstrating the existence of Calcitonin-producing cells in the thyroid. C-cell Hyperplasia and Medullary Thyroid Carcinomas stain positive for Calcitonin. Studies of Calcitonin have resulted in the identification of a wide spectrum of C-cell proliferative abnormalities.

ANTIBODY TYPE	*Rabbit Polyclonal*
CLONE	*N/A*
ISOTYPE	*IgG*
CONTROL	*Thyroid, Medullary Carcinoma of Thyroid*
LOCALIZATION	*Cytoplasmic*

CAT. #	PRESENTATION	VOL/QTY
BSB 5113	Tinto Prediluted	3.0 ml
BSB 5114	Tinto Prediluted	7.0 ml
BSB 5115	Tinto Prediluted	15.0 ml
BSB 5116	Concentrated	0.1 ml
BSB 5117	Concentrated	0.5 ml
BSB 5118	Concentrated	1.0 ml
BSB 5119	control slides	5

Calcitonin, RMab



IHC of Calcitonin on an FFPE Thyroid Tissue

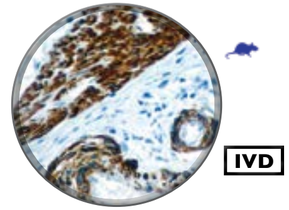
Calcitonin is a 32-amino acid polypeptide hormone that is produced in humans primarily by C-cells located in the thyroid, and in many other animals in the ultimobranchial gland. It acts to reduce blood calcium (Ca2+), opposing the effects of parathyroid hormone (PTH). It has been found in fish, reptiles, birds, and mammals. Its importance in humans has not been as well established as in other animals.

Immunohistochemical staining with Calcitonin antibody has proven to be an effective way of demonstrating the existence of Calcitonin-producing cells in the thyroid. C-cell Hyperplasia and Medullary Thyroid Carcinomas stain positive for Calcitonin. Studies of Calcitonin have resulted in the identification of a wide spectrum of C-cell proliferative abnormalities.

ANTIBODY TYPE	*Rabbit Monoclonal*
CLONE	*EP92**
ISOTYPE	*IgG*
CONTROL	*Thyroid, Thyroid Medullary Carcinoma*
LOCALIZATION	*Cytoplasmic*

CAT. #	PRESENTATION	VOL/QTY
BSB 6408	Tinto Prediluted	3.0 ml
BSB 6409	Tinto Prediluted	7.0 ml
BSB 6410	Tinto Prediluted	15.0 ml
BSB 6411	Concentrated	0.1 ml
BSB 6412	Concentrated	0.5 ml
BSB 6413	Concentrated	1.0 ml
BSB 6414	control slides	5

Caldesmon



IHC of Caldesmon on an FFPE Appendix Tissue

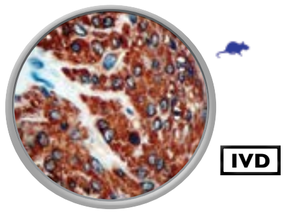
Caldesmon 1, also known as CALD1, is a human gene. Caldesmon is a calmodulin-binding protein. Like Calponin, Caldesmon tonically inhibits the ATPase activity of myosin in smooth muscle. This gene encodes a Calmodulin and actin-binding protein that play an essential role in the regulation of smooth muscle and nonmuscle contraction.

Two closely-related variants of human Caldesmon have been identified. The h-Caldesmon variant (120–150 kD) is predominantly expressed in smooth muscle, whereas l-Caldesmon (70–80 kD) is found in non-muscle tissue and cells. Neither of the two variants has been detected in skeletal muscle. Anti-Caldesmon recognizes only the h-Caldesmon variant. Anti-Caldesmon antibody labels smooth muscle and tumors of smooth muscle, myofibroblastic, and myoepithelial differentiation. Anti-Caldesmon has also been used to differentiate Epithelioid Mesothelioma from Serous Papillary Carcinoma of the ovary.

ANTIBODY TYPE	*Mouse Monoclonal*
CLONE	*CALD-31*
ISOTYPE	*IgG1/K*
CONTROL	*Appendix, Uterus, Leiomyoma*
LOCALIZATION	*Cytoplasmic*

CAT. #	PRESENTATION	VOL/QTY
BSB 6099	Tinto Prediluted	3.0 ml
BSB 6100	Tinto Prediluted	7.0 ml
BSB 6101	Tinto Prediluted	15.0 ml
BSB 6102	Concentrated	0.1 ml
BSB 6103	Concentrated	0.5 ml
BSB 6104	Concentrated	1.0 ml
BSB 6105	control slides	5

Calponin



IHC of Calponin on an FFPE Leiomyoma Tissue

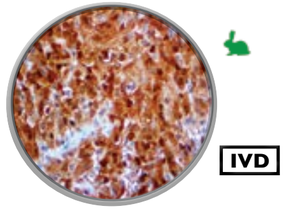
Calponin is a 34 kDa polypeptide that interacts with actin, tropomyosin, and calmodulin. It is involved in smooth-muscle contraction mechanisms and is restricted exclusively to smooth-muscle tissue. Calponin is a calcium-binding protein. Calponin tonically inhibits the ATPase activity of myosin in smooth muscle. Phosphorylation of calponin by a protein kinase (which is dependent upon calcium binding to calmodulin) releases the calponin's inhibition of the smooth-muscle ATPase.

Calponin has been found to be useful in differentiating benign sclerosing lesions of the breast from Carcinoma. Calponin positivity has also been noted in Malignant Myoepithelioma and Pleomorphic Adenoma of Salivary Gland origin, as well as in Angiomatoid Malignant Fibrous Histiocytoma.

ANTIBODY TYPE *Mouse Monoclonal*
CLONE *CALP-A6*
ISOTYPE *IgG1/K*
CONTROL *Appendix, Uterus, Leiomyoma*
LOCALIZATION *Cytoplasmic*

CAT. #	PRESENTATION	VOL/QTY
BSB 5120	Tinto Prediluted	3.0 ml
BSB 5121	Tinto Prediluted	7.0 ml
BSB 5122	Tinto Prediluted	15.0 ml
BSB 5123	Concentrated	0.1 ml
BSB 5124	Concentrated	0.5 ml
BSB 5125	Concentrated	1.0 ml
BSB 5126	control slides	5

Calretinin, RMab



IHC of Calretinin on an FFPE Mesothelioma Tissue

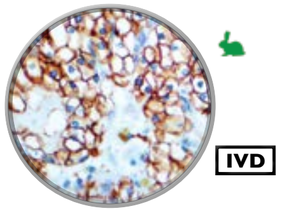
Calretinin is a vitamin D-dependent calcium-binding protein involved in calcium signaling. It is expressed in the central and peripheral nervous system and in many normal and pathological tissues. It stains Mesothelioma and can be used to help differentiate lung tumors. Calretinin is also considered an important diagnostic tool in the differential diagnosis of cystic and solid Ameloblastic Tumors.

Anti-calretinin has been shown to be useful in differentiating Mesothelioma from Adenocarcinomas of the lung and other sources. It is also useful in differentiating adrenal-cortical neoplasms from Pheochromocytomas.

ANTIBODY TYPE *Rabbit Monoclonal*
CLONE *EP1798**
ISOTYPE *IgG*
CONTROL *Malignant Mesothelioma, Benign Mesothelial Cells*
LOCALIZATION *Cytoplasmic, Nuclear*

CAT. #	PRESENTATION	VOL/QTY
BSB 5127	Tinto Prediluted	3.0 ml
BSB 5128	Tinto Prediluted	7.0 ml
BSB 5129	Tinto Prediluted	15.0 ml
BSB 5130	Concentrated	0.1 ml
BSB 5131	Concentrated	0.5 ml
BSB 5132	Concentrated	1.0 ml
BSB 5133	control slides	5

Carbonic Anhydrase 9, RMab



IHC of Carbonic Anhydrase 9 on an FFPE Kidney Tissue

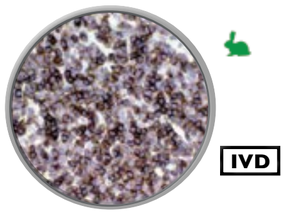
Carbonic anhydrases (CAs) are a large family of zinc metalloenzymes that catalyze the reversible hydration of carbon dioxide. They participate in a variety of biological processes, including respiration, calicification, acid-base balance, bone resorption, and the formation of aqueous humor, cerebrospinal fluid, saliva, and gastric acid. They show extensive diversity in tissue distribution and in their subcellular localization.

CA9 is a transmembrane protein and the only tumor-associated CA isoenzyme known. It is expressed in all clear-cell renal cell carcinoma, but is not detected in normal kidney or most other normal tissues. It may be invovled in cell proliferation and transformation. CA9 is considered to be one of the best cellular biomarkers of hypoxic regions in many solid tumors.

ANTIBODY TYPE *Rabbit Monoclonal*
CLONE *EP161**
ISOTYPE *IgG*
CONTROL *Kidney, Cervix and Lung Carcinomas*
LOCALIZATION *Membranous, Cytoplasmic*

CAT. #	PRESENTATION	VOL/QTY
BSB 6415	Tinto Prediluted	3.0 ml
BSB 6416	Tinto Prediluted	7.0 ml
BSB 6417	Tinto Prediluted	15.0 ml
BSB 6418	Concentrated	0.1 ml
BSB 6419	Concentrated	0.5 ml
BSB 6420	Concentrated	1.0 ml
BSB 6421	control slides	5

CD1a, RMab



IHC of CD1a on an FFPE Thymus Tissue

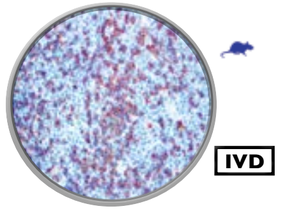
CD1 proteins have been demonstrated to restrict T-cell response to non-peptide lipid and glycolipid antigens. At least five CD1 genes (CD1a, b, c, d, and e) have been identified. CD1a belongs to a family of glycoproteins expressed on the surface of various human antigen-presenting cells. In particular, CD1a is a protein of 43 to 49 kDa, and has been shown to be expressed on dendritic cells and cortical thymocytes. Langerhans cells in the skin and some epithelia also express this protein. This antigen is expressed in cells comprising Langerhans Cell Histiocytosis and Langerhans Cell Sarcoma.

Anti-CD1a has been used to differentiate various cutaneous Lymphomas (T-cell) from B-cell Lymphomas and Pseudolymphomas. CD1a is also expressed by some malignancies of T-cell lineage and in Histiocytosis X.

ANTIBODY TYPE *Rabbit Monoclonal*
CLONE *EP80**
ISOTYPE *IgG*
CONTROL *Skin, Thymus*
LOCALIZATION *Cytoplasmic, Membranous*

CAT. #	PRESENTATION	VOL/QTY
BSB 5134	Tinto Prediluted	3.0 ml
BSB 5135	Tinto Prediluted	7.0 ml
BSB 5136	Tinto Prediluted	15.0 ml
BSB 5137	Concentrated	0.1 ml
BSB 5138	Concentrated	0.5 ml
BSB 5139	Concentrated	1.0 ml
BSB 5140	control slides	5

CD2



IHC of CD2 on an FFPE T-Cell Lymphoma Tissue

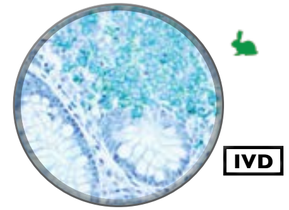
CD2 is a cell-adhesion molecule found on the surface of T-cells and natural killer (NK) cells. It has also been called T-cell surface antigen T11/Leu-5, LFA-2, LFA-3 receptor, erythrocyte receptor and rosette receptor. Due to its structural characteristics, CD2 is a member of the immunoglobulin superfamily; it possesses two immunoglobulin-like domains in its extracellular portion. It interacts with other adhesion molecules, such as lymphocyte function-associated antigen-3 (LFA-3/CD58) in humans, or CD48 in rodents, which are expressed on the surfaces of other cells. In addition to its adhesive properties, CD2 also acts as a co-stimulatory molecule on T and NK cells.

CD2 is a surface antigen of the human T-lymphocyte lineage that is expressed on all peripheral blood T-cells. It is one of the earliest T-cell markers, being present on more than 95% of thymocytes; it is also found on some natural killer cells but not on B-lymphocytes. CD2 is implicated in the triggering of T-cells; the cytoplasmic domain is implicated in the signaling function. It is useful for the identification of Lymphomas and Leukemias of T-cell origin. As with other pan-T cell antigens, CD2 may be aberrantly deleted in some neoplastic T-cell populations, especially Peripheral T-cell Lymphomas.

ANTIBODY TYPE *Mouse Monoclonal*
CLONE *AB75*
ISOTYPE *IgG1/K*
CONTROL *Tonsil, Lymph Node*
LOCALIZATION *Membranous*

CAT. #	PRESENTATION	VOL/QTY
BSB 6205	Tinto Prediluted	3.0 ml
BSB 6206	Tinto Prediluted	7.0 ml
BSB 6207	Tinto Prediluted	15.0 ml
BSB 6208	Concentrated	0.1 ml
BSB 6209	Concentrated	0.5 ml
BSB 6210	Concentrated	1.0 ml
BSB 6211	control slides	5

CD3 Epsilon, RMab



IHC of CD3 Epsilon on a FFPE Colon Tissue

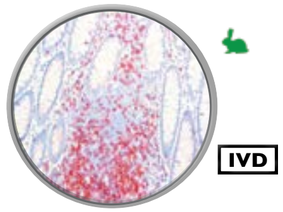
The CD3 antigen is a protein complex composed of three distinct chains (CD3γ, CD3δ and CD3ε) that associate with T-cell receptors and the ζ-chain to generate an activation signal in T-lymphocytes. The TCR, ζ-chain and CD3 molecules together, comprise the TCR complex. The CD3γ, CD3δ and CD3ε chains are highly-related cell surface proteins of the immunoglobulin superfamily containing a single extracellular immunoglobulin domain. The intracellular tails of the CD3 molecules contain a single conserved motif known as an immunoreceptor tyrosine-based activation motif (or ITAM for short), which is essential for the signaling capacity of the TCR. Phosphorylation of the ITAM on CD3 renders the CD3 chain capable of binding the enzyme ZAP70 (zeta-associated protein), a kinase important in the signaling cascade of the T-cell.

CD3 has been considered the best all-around T-cell marker. This antibody reacts with an antigen present in early thymocytes. The positive staining of this marker may represent a sign of early commitment to the T-cell lineage.

ANTIBODY TYPE *Rabbit Monoclonal*
CLONE *RBT-CD3e*
ISOTYPE *IgG*
CONTROL *Tonsil, Lymph Node*
LOCALIZATION *Membranous*

CAT. #	PRESENTATION	VOL/QTY
BSB 5141	Tinto Prediluted	3.0 ml
BSB 5142	Tinto Prediluted	7.0 ml
BSB 5143	Tinto Prediluted	15.0 ml
BSB 5144	Concentrated	0.1 ml
BSB 5145	Concentrated	0.5 ml
BSB 5146	Concentrated	1.0 ml
BSB 5147	control slides	5

CD3, RMab



IHC of CD3 on an FFPE Colon Tissue

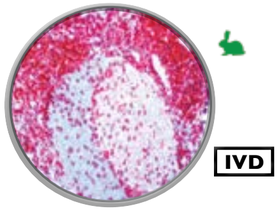
The CD3 antigen is a protein complex composed of three distinct chains (CD3γ, CD3δ and CD3ε) that associate with T-cell receptors and the ζ-chain to generate an activation signal in T-lymphocytes. The TCR, ζ-chain and CD3 molecules together, comprise the TCR complex. The CD3γ, CD3δ, and CD3ε chains are highly-related cell surface proteins of the immunoglobulin superfamily containing a single extracellular immunoglobulin domain. The intracellular tails of the CD3 molecules contain a single conserved motif known as an immunoreceptor tyrosine-based activation motif (or ITAM for short), which is essential for the signaling capacity of the TCR. Phosphorylation of the ITAM on CD3 renders the CD3 chain capable of binding the enzyme ZAP70 (zeta-associated protein), a kinase important in the signaling cascade of the T-cell.

CD3 has been considered the best all-around T-cell marker. This antibody reacts with an antigen present in early thymocytes. The positive staining of this marker may represent a sign of early commitment to the T-cell lineage.

ANTIBODY TYPE *Rabbit Monoclonal*
CLONE *RBT-CD3*
ISOTYPE *IgG*
CONTROL *Tonsil, Lymph Node*
LOCALIZATION *Membranous*

CAT. #	PRESENTATION	VOL/QTY
BSB 6422	Tinto Prediluted	3.0 ml
BSB 6423	Tinto Prediluted	7.0 ml
BSB 6424	Tinto Prediluted	15.0 ml
BSB 6425	Concentrated	0.1 ml
BSB 6426	Concentrated	0.5 ml
BSB 6427	Concentrated	1.0 ml
BSB 6428	control slides	5

CD4, RMab



IHC of CD4 on an FFPE Tonsil Tissue

CD4 is a glycoprotein expressed on the surface of T-helper cells, regulatory T-cells, monocytes, macrophages, and dendritic cells. On T-cells, CD4 is the co-receptor for the T-cell receptor (TCR). It amplifies the signal generated by the TCR by recruiting the tyrosine kinase that is essential for activating many molecules involved in the signaling cascade of an activated T-cell.

CD4 antigen is involved in the recognition of Type II Major Histocompatability Complex antigens (MHC-II). CD4 is also the receptor for Human Immunodeficiency Virus (HIV). It is present on most T-helper cells and normal thymocytes.

ANTIBODY TYPE *Rabbit Monoclonal*
CLONE *RBT-CD4*
ISOTYPE *IgG*
CONTROL *Tonsil, Lymph Node*
LOCALIZATION *Membranous*

CAT. #	PRESENTATION	VOL/QTY
BSB 5148	Tinto Prediluted	3.0 ml
BSB 5149	Tinto Prediluted	7.0 ml
BSB 5150	Tinto Prediluted	15.0 ml
BSB 5151	Concentrated	0.1 ml
BSB 5152	Concentrated	0.5 ml
BSB 5153	Concentrated	1.0 ml
BSB 5154	control slides	5

CD5, RMab

IHC of CD5 on an FFPE
Non-Hodgkin's Lymphoma Tissue

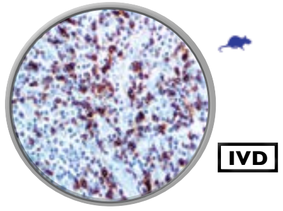
CD5 is a glycoprotein monomer with a molecular weight of 67 kDa belonging to the scavenger receptor cysteine-rich (SRCR) family of extracellular domain-like structures. It possesses a large cytoplasmic domain suitable for signal transduction.

CD5 is a T-cell marker that also reacts with a range of neoplastic B-cells, e.g., B-cell Chronic Lymphocytic Leukemia (B-CLL), B-cell Small Lymphocytic Lymphoma (B-SLL), and Mantle Cell Lymphoma. CD5 is expressed in T-lymphocyte subsets and is modulated during cellular activation; however, it does not react with granulocytes or monocytes.

ANTIBODY TYPE *Rabbit Monoclonal*
CLONE *RBT-CD5*
ISOTYPE *IgG*
CONTROL *Tonsil, Lymph Node*
LOCALIZATION *Membranous*

CAT. #	PRESENTATION	VOL/QTY
BSB 5155	Tinto Prediluted	3.0 ml
BSB 5156	Tinto Prediluted	7.0 ml
BSB 5157	Tinto Prediluted	15.0 ml
BSB 5158	Concentrated	0.1 ml
BSB 5159	Concentrated	0.5 ml
BSB 5160	Concentrated	1.0 ml
BSB 5161	control slides	5

CD7



IHC of CD7 on an T-Cell Lymphoma Tissue

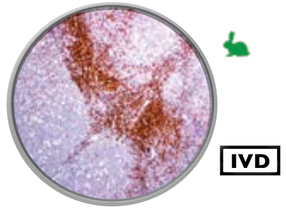
CD7 is a 40 kDa transmembrane, single-chain glycoprotein, which is a member of the immunoglobulin gene superfamily. It is expressed in the majority of immature and mature T-lymphocytes, and T-cell Leukemia. It is also found in natural killer cells, a small subpopulation of normal B-cells and in malignant B-cells. It plays an essential role in T-cell interactions and also in T-cell/B-cell interaction during early lymphoid development.

CD7 is a consistently-expressed T-cell antigen in Lymphoblastic Lymphomas and Leukemias; therefore, it is a useful marker in the identification of such neoplastic proliferations. CD7 is expressed in the majority of mature peripheral T-cells, the majority of post-thymic T-cells, NK cells, some myeloid cells, T-cell Acute Lymphoblastic Leukemia/Lymphoma, Acute Myelogenous Leukemia and Chronic Myelogenous Leukemia. Interestingly, CD7 is conspicuously absent in adult T-cell Leukemia/Lymphoma and is not expressed in Sezary cells.

ANTIBODY TYPE *Mouse Monoclonal*
CLONE *LP15*
ISOTYPE *IgG2b*
CONTROL *Tonsil, Lymph Node*
LOCALIZATION *Membranous*

CAT. #	PRESENTATION	VOL/QTY
BSB 5162	Tinto Prediluted	3.0 ml
BSB 5163	Tinto Prediluted	7.0 ml
BSB 5164	Tinto Prediluted	15.0 ml
BSB 5165	Concentrated	0.1 ml
BSB 5166	Concentrated	0.5 ml
BSB 5167	Concentrated	1.0 ml
BSB 5168	control slides	5

CD7, RMab



IHC of CD7 on an FFPE Tonsil Tissue

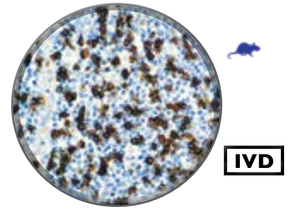
CD7 is a 40 kDa transmembrane, single-chain glycoprotein, which is a member of the immunoglobulin gene superfamily. It is expressed in the majority of immature and mature T-lymphocytes and T-cell Leukemia. CD7 is also found in natural killer cells, a small subpopulation of normal B-cells and in malignant B-cells. It plays an essential role in T-cell interactions and also in T-cell/B-cell interactions during early lymphoid development.

CD7 is a consistently-expressed T-cell antigen in Lymphoblastic Lymphomas and Leukemias; therefore, it is a useful marker in the identification of such neoplastic proliferations. CD7 is expressed in the majority of mature peripheral T-cells, the majority of post-thymic T-cells, NK cells, some myeloid cells, T-cell Acute Lymphoblastic Leukemia/Lymphoma, Acute Myelogenous Leukemia and Chronic Myelogenous Leukemia. Interestingly, CD7 is conspicuously absent in adult T-cell Leukemia/Lymphoma and is not expressed in Sezary cells.

ANTIBODY TYPE *Rabbit Monoclonal*
CLONE *EP132**
ISOTYPE *IgG*
CONTROL *Tonsil, Lymph Node*
LOCALIZATION *Membranous*

CAT. #	PRESENTATION	VOL/QTY
BSB 2321	Tinto Prediluted	3.0 ml
BSB 2322	Tinto Prediluted	7.0 ml
BSB 2323	Tinto Prediluted	15.0 ml
BSB 2324	Concentrated	0.1 ml
BSB 2325	Concentrated	0.5 ml
BSB 2326	Concentrated	1.0 ml
BSB 2327	control slides	5

CD8



IHC of CD8 on an FFPE Tonsil Tissue

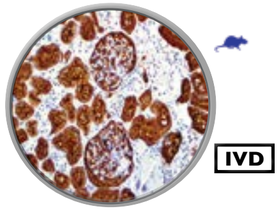
CD8 is a transmembrane glycoprotein that serves as a co-receptor for the T-cell receptor (TCR). Like the TCR, CD8 binds to a major histocompatibility complex (MHC) molecule that is specific for the Class I MHC protein. To function, CD8 forms a dimer, consisting of a pair of CD8 chains. The most common form of CD8 is composed of a CD8-α and CD8-β chain, both members of the immunoglobulin superfamily with an immunoglobulin variable (IgV)-like extracellular domain connected to the membrane by a thin stalk, and an intracellular tail.

CD8 is a T-cell marker for the detection of cytotoxic/suppressor cells of blood lymphocytes. CD8 is also detected on NK cells, most thymocytes, a subpopulation of null cells and bone marrow cells. This antibody is used to distinguish between reactive and neoplastic T-cells.

ANTIBODY TYPE *Mouse Monoclonal*
CLONE *C8/144B*
ISOTYPE *IgG1/K*
CONTROL *Tonsil, Lymph Node*
LOCALIZATION *Membranous*

CAT. #	PRESENTATION	VOL/QTY
BSB 5169	Tinto Prediluted	3.0 ml
BSB 5170	Tinto Prediluted	7.0 ml
BSB 5171	Tinto Prediluted	15.0 ml
BSB 5172	Concentrated	0.1 ml
BSB 5173	Concentrated	0.5 ml
BSB 5174	Concentrated	1.0 ml
BSB 5175	control slides	5

CD10



IHC of CD10 on an FFPE Kidney Tissue

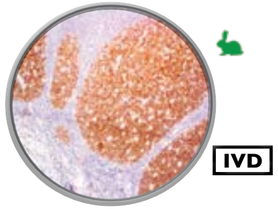
CD10, also known as neutral endopeptidase (NEP), Neprilysin, and common Acute Lymphoblastic Leukemia antigen (CALLA), is a zinc-dependent metalloprotease enzyme that degrades a number of small secreted peptides, most notably the amyloid beta peptide whose abnormal misfolding and aggregation in neural tissue has been implicated as a cause of Alzheimer's Disease.

CD10 is a useful marker for the characterization of childhood Leukemia and B-cell Lymphomas. This antibody reacts with the antigens of Lymphoblastic, Burkitt's, and Follicular Lymphomas, and Chronic Myelocytic Leukemia. Also, CD10 detects the antigen of glomerular epithelial cells and the brush border of the proximal tubules. This characteristic may be helpful in interpreting renal ontogenesis in conjunction with other markers. Other non-lymphoid cells that are reactive with CD10 are breast myoepithelial cells, bile canaliculi, neutrophils, a small population of bone marrow cells, fetal small intestine epithelium, and normal fibroblasts.

ANTIBODY TYPE *Mouse Monoclonal*
CLONE *56C6*
ISOTYPE *IgG1*
CONTROL *Kidney, Tonsil, Lymph Node*
LOCALIZATION *Cytoplasmic, Membranous*

CAT. #	PRESENTATION	VOL/QTY
BSB 5176	Tinto Prediluted	3.0 ml
BSB 5177	Tinto Prediluted	7.0 ml
BSB 5178	Tinto Prediluted	15.0 ml
BSB 5179	Concentrated	0.1 ml
BSB 5180	Concentrated	0.5 ml
BSB 5181	Concentrated	1.0 ml
BSB 5182	control slides	5

CD10, RMab



IHC of CD10 on an FFPE Tonsil Tissue

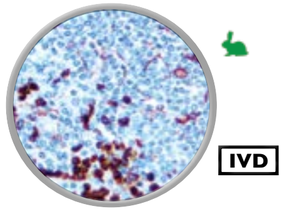
CD10, also known as neutral endopeptidase (NEP), Neprilysin, and common Acute Lymphoblastic Leukemia antigen (CALLA), is a zinc-dependent metalloprotease enzyme that degrades a number of small secreted peptides, most notably the amyloid beta peptide whose abnormal misfolding and aggregation in neural tissue has been implicated as a cause of Alzheimer's Disease.

CD10 is a useful marker for the characterization of childhood Leukemia and B-cell Lymphomas. This antibody reacts with the antigens of Lymphoblastic, Burkitt's, and Follicular Lymphomas, and Chronic Myelocytic Leukemia. Also, CD10 detects the antigen of glomerular epithelial cells and the brush border of the proximal tubules. This characteristic may be helpful in interpreting renal ontogenesis in conjunction with other markers. Other non-lymphoid cells that are reactive with CD10 are breast myoepithelial cells, bile canaliculi, neutrophils, a small population of bone marrow cells, fetal small intestine epithelium, and normal fibroblasts.

ANTIBODY TYPE *Rabbit Monoclonal*
CLONE *EP195**
ISOTYPE *IgG*
CONTROL *Kidney, Tonsil, Lymph Node*
LOCALIZATION *Cytoplasmic, Membranous*

CAT. #	PRESENTATION	VOL/QTY
BSB 6429	Tinto Prediluted	3.0 ml
BSB 6430	Tinto Prediluted	7.0 ml
BSB 6431	Tinto Prediluted	15.0 ml
BSB 6432	Concentrated	0.1 ml
BSB 6433	Concentrated	0.5 ml
BSB 6434	Concentrated	1.0 ml
BSB 6435	control slides	5

CD11b/ITGAM



IHC of CD11b on an FFPE Spleen Tissue

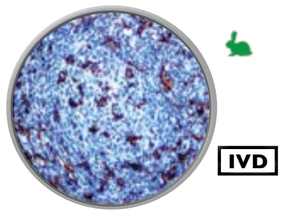
Integrin alpha M (ITGAM) is one protein subunit that forms the heterodimeric integerin alpha-M beta-2 molecule, also known as macrophage-1 antigen (Mac-1) or complement receptor 3 (CR3). ITGAM is also known as CR3A and cluster of differentiation molecule 11B (CD11b). The αMβ2 molecule is expressed on the surface of many leukocytes involved in the innate immune system, including monocytes, granulocytes, macrophages, and natural killer cells. It mediates inflammation by regulating luekocyte adhesion and migration and has been implicated in several immune processes such as phagocytosis, cell-mediated cytoxicity, chemotaxis and cellular activation. The ITGAM subunit of αMβ2 is directly involved in causing the adhesion and spreading of cells but cannot mediate cellular migration without the presence of the Beta-2 (CD18) subunit.

CD11b has been used as a common myeloid marker and is expressed in about 50% of acute myeloid leukemia (AML). In combination with CD117, CD11b is helpful in differentiating acute promyelocytic leukemia (CD11b negative) from recovering benign myeloid proliferation (CD11b positive, CD117 negative).

ANTIBODY TYPE *Rabbit Monoclonal*
CLONE *EP45**
ISOTYPE *IgG*
CONTROL *Spleen, Leukemia*
LOCALIZATION *Cytoplasmic*

CAT. #	PRESENTATION	VOL/QTY
BSB 6436	Tinto Prediluted	3.0 ml
BSB 6437	Tinto Prediluted	7.0 ml
BSB 6438	Tinto Prediluted	15.0 ml
BSB 6439	Concentrated	0.1 ml
BSB 6440	Concentrated	0.5 ml
BSB 6441	Concentrated	1.0 ml
BSB 6442	control slides	5

CD11c, RMab



IHC of CD11c on an FFPE Spleen Tissue

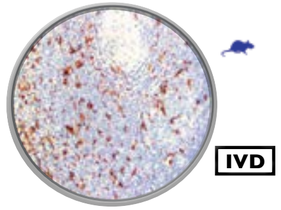
CD11c (1TGAX) is a member of the leukointegrin family and shares the same beta subunit with other members of the leukocyte adhesion molecule family, which include CD11a (LFA-1), CD11b (MAC-1), and CD11d (ITGAD), but has a unique alpha chain. CD11c is a type I transmembrane protien found at high levels on most human dendritic cells, but also on monocytes, macrophages, neutrophils, and some B cells that induces cellular activation and helps trigger neutrophil respiratory burst.

CD11c is expressed in Hairy Cell leukemias, Acute Nonlymphocytic Leukemias, and some B-cell Chronic Lymphocytic Leukemias.

ANTIBODY TYPE *Rabbit Monoclonal*
CLONE *EP157**
ISOTYPE *IgG*
CONTROL *Bone Marrow, Hairy Cell Leukemia, Spleen*
LOCALIZATION *Cytoplasmic*

CAT. #	PRESENTATION	VOL/QTY
BSB 6443	Tinto Prediluted	3.0 ml
BSB 6444	Tinto Prediluted	7.0 ml
BSB 6445	Tinto Prediluted	15.0 ml
BSB 6446	Concentrated	0.1 ml
BSB 6447	Concentrated	0.5 ml
BSB 6448	Concentrated	1.0 ml
BSB 6449	control slides	5

CD13



IHC of CD13 on an FFPE Spleen Tissue

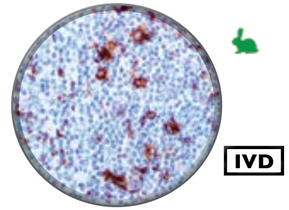
CD13 (also known as aminopeptidase-N) is expressed on the majority of peripheral blood monocytes and granulocytes. It is also expressed by the majority of acute myeloid leukemias, chronic myeloid leukemias in myeloid blast crisis, a smaller percentage of lymphoid leukemias and myeloid cell lines. CD13 is absent from normal lymphocytes, platelets and erythrocytes. CD13 is also present on fibroblasts, endothelial cells, epithelial cells from renal proximal tubules and intestinal brush border, bone marrow stromal cells, osteoclasts, and cells forming bile canaliculi.

Anti-Human CD13 recognizes the human CD13 antigen expressed on the majority of peripheral blood monocytes and granulocytes and on endothelial cells. CD13 plays a role in biologically active peptide metabolism, in the control of growth and differentiation, in phagocytosis and in bactericidal/tumoricidal activities. CD13 also serves as a receptor for human coronaviruses (HCV).

ANTIBODY TYPE *Mouse Monoclonal*
CLONE *38C12*
ISOTYPE *IgG1*
CONTROL *Spleen, Tonsil, Prostate, Liver*
LOCALIZATION *Cytoplasmic, Membranous*

CAT. #	PRESENTATION	VOL/QTY
BSB 6324	Tinto Prediluted	3.0 ml
BSB 6325	Tinto Prediluted	7.0 ml
BSB 6326	Tinto Prediluted	15.0 ml
BSB 6327	Concentrated	0.1 ml
BSB 6328	Concentrated	0.5 ml
BSB 6329	Concentrated	1.0 ml
BSB 6330	control slides	5

CD13, RMab



IHC of CD13 on an FFPE Tonsil Tissue

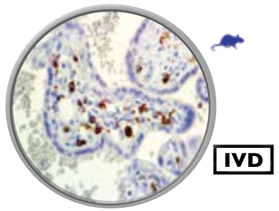
CD13 (also known as aminopeptidase-N) is expressed on the majority of peripheral blood monocytes and granulocytes. It is also expressed by the majority of acute myeloid leukemias, chronic myeloid leukemias in myeloid blast crisis, a smaller percentage of lymphoid leukemias and myeloid cell lines. CD13 is absent from normal lymphocytes, platelets and erythrocytes. CD13 is also present on fibroblasts, endothelial cells, epithelial cells from renal proximal tubules and intestinal brush border, bone marrow stromal cells, osteoclasts, and cells forming bile canaliculi.

Anti-Human CD13 recognizes the human CD13 antigen expressed on the majority of peripheral blood monocytes and granulocytes and on endothelial cells. CD13 plays a role in biologically active peptide metabolism, in the control of growth and differentiation, in phagocytosis and in bactericidal/tumoricidal activities. CD13 also serves as a receptor for human coronaviruses (HCV).

ANTIBODY TYPE *Rabbit Monoclonal*
CLONE *EP117**
ISOTYPE *IgG*
CONTROL *Spleen, Tonsil, Prostate, Liver*
LOCALIZATION *Cytoplasmic, Membranous*

CAT. #	PRESENTATION	VOL/QTY
BSB 6450	Tinto Prediluted	3.0 ml
BSB 6451	Tinto Prediluted	7.0 ml
BSB 6452	Tinto Prediluted	15.0 ml
BSB 6453	Concentrated	0.1 ml
BSB 6454	Concentrated	0.5 ml
BSB 6455	Concentrated	1.0 ml
BSB 6456	control slides	5

CD14



IHC of CD14 on a FFPE Placenta Tissue

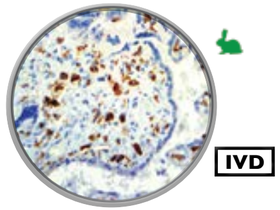
CD14 is a human gene. The protein encoded by this gene is a component of the innate immune system. CD14 exists in two forms. It is either anchored into the membrane by a a glycosylphosphatidylinositol tail (mCDCD14), or it appears in a soluble form (sCD14). CD14 acts as a co-receptor (along with the Toll-like receptor TLR 4 and MD-2) for the detection of bacterial lipopolysaccharide (LPS). CD14 can only bind LPS in the presence of lipopolysaccharide-binding protein (LBP). Although LPS is considered it's main ligand, CD14 also recognizes other pathogen associated molecular patterns.

CD14 is expressed mainly by macrophages and (at 10 times lesser extent) by neutrophil granulocytes. A soluble form sCD14 is secreted by the liver and monocytes and is sufficient in low concentrations to confer LPS-responsiveness to cells which otherwise do not express CD14. sCD14 is also present in human milk where it is believed to regulate microbial growth in the infant gut. Increased sCD14 levels are associated with inflammatory infectious diseases and high mortality in gram-negative shock. CD14 also appears to be involved in clearance of gram-negative bacteria via its high affinity binding to LPS-LPB complexes.

ANTIBODY TYPE *Mouse Monoclonal*
CLONE *7*
ISOTYPE *IgG2a*
CONTROL *Placenta, Tonsil, Spleen*
LOCALIZATION *Cytoplasmic, Membranous*

CAT. #	PRESENTATION	VOL/QTY
BSB 6310	Tinto Prediluted	3.0 ml
BSB 6311	Tinto Prediluted	7.0 ml
BSB 6312	Tinto Prediluted	15.0 ml
BSB 6313	Concentrated	0.1 ml
BSB 6314	Concentrated	0.5 ml
BSB 6315	Concentrated	1.0 ml
BSB 6316	control slides	5

CD14, RMab



IHC of CD14 on an FFPE Placenta Tissue

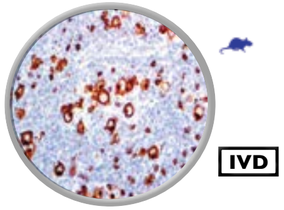
CD14 is a component of the innate immune system. CD14 exists in two forms: mCD14 (anchored by a glycosylphosphatidylinositol tail) or sCD14 (soluble). CD14 acts as a co-receptor (along with the Toll-like receptor TLR 4 and MD-2) for the detection of bacterial lipopolysaccharide (LPS). CD14 can only bind LPS in the presence of lipopolysaccharide-binding protein (LBP). Although LPS is considered it's main ligand, CD14 also recognizes other pathogen associated molecular patterns.

CD14 is expressed mainly by macrophages and (at 10 times lesser extent) by neutrophil granulocytes. A soluble form sCD14 is secreted by the liver and monocytes and is sufficient in low concentrations to confer LPS-responsiveness to cells which otherwise do not express CD14. sCD14 is also present in human milk where it is believed to regulate microbial growth in the infant gut. Increased sCD14 levels are associated with inflammatory infectious diseases and high mortality in gram-negative shock. CD14 also appears to be involved in clearance of gram-negative bacteria via its high affinity binding to LPS-LPB complexes.

ANTIBODY TYPE *Rabbit Monoclonal*
CLONE *EP128**
ISOTYPE *IgG*
CONTROL *Placenta, Tonsil, Spleen*
LOCALIZATION *Cytoplasmic, Membranous*

CAT. #	PRESENTATION	VOL/QTY
BSB 6457	Tinto Prediluted	3.0 ml
BSB 6458	Tinto Prediluted	7.0 ml
BSB 6459	Tinto Prediluted	15.0 ml
BSB 6460	Concentrated	0.1 ml
BSB 6461	Concentrated	0.5 ml
BSB 6462	Concentrated	1.0 ml
BSB 6463	control slides	5

CD15



IHC of CD15 on an FFPE Hodgkin's Lymphoma Tissue

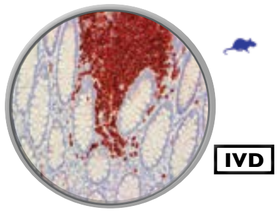
CD15 is a phosphatidylinositol-anchored transmembrane protein found on neutrophils and which may be involved in phagocytosis. It is expressed in patients with Hodgkin's Disease, some B-cell Chronic Lymphocytic Leukemias, Acute Lymphoblastic Leukemias, and most Acute Non-Lymphocytic Leukemias. It is also called Lewis x.

A positive reaction for CD15 combined with a negative reaction for CD45 and other B and T-lineage markers provides support for Reed-Sternberg cells found in Hodgkin's disease. Also, this antibody does not detect Mesotheliomas, making it a more frequently used antibody to distinguish Epithelial Mesothelioma from Adenocarcinoma.

ANTIBODY TYPE *Mouse Monoclonal*
CLONE *MMA*
ISOTYPE *IgM*
CONTROL *Hodgkin's Lymphoma*
LOCALIZATION *Cytoplasmic, Membranous*

CAT. #	PRESENTATION	VOL/QTY
BSB 5183	Tinto Prediluted	3.0 ml
BSB 5184	Tinto Prediluted	7.0 ml
BSB 5185	Tinto Prediluted	15.0 ml
BSB 5186	Concentrated	0.1 ml
BSB 5187	Concentrated	0.5 ml
BSB 5188	Concentrated	1.0 ml
BSB 5189	control slides	5

CD19



IHC of CD19 on an FFPE Colon Tissue

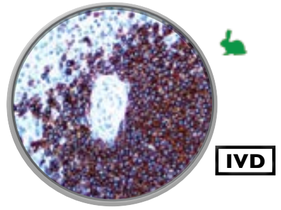
CD19 is a human protein encoded by the CD19 gene. CD19 is expressed on follicular dendritic cells and B-cells; it is present on B-cells from earliest recognizable B-lineage cells during development to B-cell blasts, but is lost on maturation to plasma cells. In normal lymphoid tissue, CD19 is observed in germinal centers (on both B-cells and follicular dendritic cells), in mantle-zone cells, and in scattered cells in the interfollicular areas, with an overall immunoreactivity pattern similar to that of CD20 and CD22. However, in contrast to CD20, CD19 is also expressed in pre-B-cells.

CD19 positivity is seen in the vast majority of B-cell neoplasms (B-Lymphoblastic Lymphoma, Small Lymphocytic Lymphoma/CLL, Mantle Cell Lymphoma, Follicular Lymphoma, Burkitt's Lymphoma, Marginal Zone Lymphoma, Diffuse Large B-cell Lymphoma, T-cell-rich B-cell Lymphoma, Lymphoblastic Lymphoma, Hairy Cell Leukemia), and commonly at a lower intensity than normal B-cell elements. Plasma cell neoplasms are consistently negative, as are T-cell neoplasms. CD19 expression is not seen in Reed-Sternberg cells of classic Hodgkin's Disease.

ANTIBODY TYPE *Mouse Monoclonal*
CLONE *MRQ-36*
ISOTYPE *IgG1/K*
CONTROL *Tonsil, Lymph Node*
LOCALIZATION *Membranous*

CAT. #	PRESENTATION	VOL/QTY
BSB 6226	Tinto Prediluted	3.0 ml
BSB 6227	Tinto Prediluted	7.0 ml
BSB 6228	Tinto Prediluted	15.0 ml
BSB 6229	Concentrated	0.1 ml
BSB 6230	Concentrated	0.5 ml
BSB 6231	Concentrated	1.0 ml
BSB 6232	control slides	5

CD19. RMab



IHC of CD19 on an FFPE Spleen Tissue

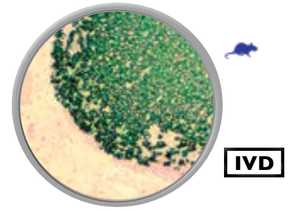
CD19 is a human protein encoded by the CD19 gene. CD19 is expressed on follicular dendritic cells and immature B-cells; it is present on B-cells from earliest recognizable B-lineage cells during development to B-cell blasts, but is lost on maturation to plasma cells. In normal lymphoid tissue, CD19 is observed in germinal centers (on both B-cells and follicular dendritic cells), in mantle-zone cells, and in scattered cells in the interfollicular areas, with an overall immunoreactivity pattern similar to that of CD20 and CD22. However, in contrast to CD20, CD19 is also expressed in pre-B-cells.

CD19 positivity is seen in the vast majority of B-cell neoplasms (B-Lymphoblastic Lymphoma, Small Lymphocytic Lymphoma/CLL, Mantle Cell Lymphoma, Follicular Lymphoma, Burkitt's Lymphoma, Marginal Zone Lymphoma, Diffuse Large B-cell Lymphoma, T-cell-rich B-cell Lymphoma, Lymphoblastic Lymphoma, Hairy Cell Leukemia), and commonly at a lower intensity than normal B-cell elements. Plasma cell neoplasms are consistently negative, as are T-cell neoplasms. CD19 expression is not seen in Reed-Sternberg cells of classic Hodgkin's Disease.

ANTIBODY TYPE *Rabbit Monoclonal*
CLONE *EP169**
ISOTYPE *IgG*
CONTROL *Tonsil, Lymph Node*
LOCALIZATION *Membranous*

CAT. #	PRESENTATION	VOL/QTY
BSB 6464	Tinto Prediluted	3.0 ml
BSB 6465	Tinto Prediluted	7.0 ml
BSB 6466	Tinto Prediluted	15.0 ml
BSB 6467	Concentrated	0.1 ml
BSB 6468	Concentrated	0.5 ml
BSB 6469	Concentrated	1.0 ml
BSB 6470	control slides	5

CD20



IHC of CD20 on an FFPE Colon Tissue

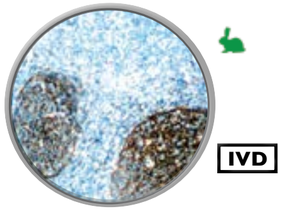
CD20 is a transmembrane, non-glycosylated protein expressed on B-cell precursors and mature B-cells, but lost following differentiation into plasma cells. This antibody does not cross-react with non-hematopoietic neoplasms. CD20 (B-cell Pan) reacts with a membrane antigen present in B-cells.

This antibody strongly recognizes Reed-Sternberg cells predominant in Hodgkin's disease. Since no staining of histiocytes or plasma cells has been observed and CD20 has not been detected in T-cell malignancies, it is a very strong marker of B-cell Lymphomas. B-cell Panmarker recognizes a formalin-resistant intracytoplasmic antigen.

ANTIBODY TYPE *Mouse Monoclonal*
CLONE *L26*
ISOTYPE *IgG2a/K*
CONTROL *Tonsil, Lymph Node*
LOCALIZATION *Membranous*

CAT. #	PRESENTATION	VOL/QTY
BSB 5190	Tinto Prediluted	3.0 ml
BSB 5191	Tinto Prediluted	7.0 ml
BSB 5192	Tinto Prediluted	15.0 ml
BSB 5193	Concentrated	0.1 ml
BSB 5194	Concentrated	0.5 ml
BSB 5195	Concentrated	1.0 ml
BSB 5196	control slides	5

CD21, RMab



IHC of CD21 on an FFPE Tonsil Tissue

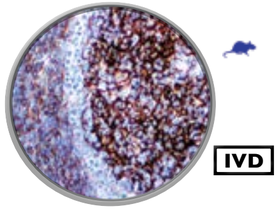
CD21, also known as CR2, complement component (3d/Epstein Barr virus) receptor 2, is an integral membrane glycoprotein of molecular weight 140 kDa, involved in the complement system. CD21 binds to C3d. B-cells have CR2 receptors on their surfaces, allowing the complement system to play a role in B-cell activation and maturation. Complement component receptor-2 (CR2) is the membrane protein on B-lymphocytes to which the Epstein-Barr virus (EBV) binds during infection of these cells.

Anti-CD21 is useful in the identification of follicular dendritic cell matrixes found in normal lymph nodes and tonsillar tissue. This antibody also labels Follicular Dendritic Cell Tumor/ Sarcomas. The antigen is absent on T-lymphocytes, monocytes, and granulocytes.

ANTIBODY TYPE *Rabbit Monoclonal*
CLONE *EP64**
ISOTYPE *IgG*
CONTROL *Tonsil, Lymph Node*
LOCALIZATION *Membranous*

CAT. #	PRESENTATION	VOL/QTY
BSB 5197	Tinto Prediluted	3.0 ml
BSB 5198	Tinto Prediluted	7.0 ml
BSB 5199	Tinto Prediluted	15.0 ml
BSB 5200	Concentrated	0.1 ml
BSB 5201	Concentrated	0.5 ml
BSB 5202	Concentrated	1.0 ml
BSB 5203	control slides	5

CD23



IHC of CD23 on an FFPE Tonsil Tissue

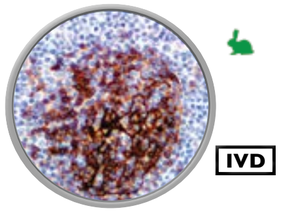
CD23, also known as Fc epsilon RII, is the "low affinity" receptor for IgE, an antibody isotype involved in allergy and (arguably) resistance to parasites, and is important in regulation of IgE levels. Unlike many of the antibody receptors, CD23 is a C-type lectin. It is found on mature B-cells, activated macrophages, eosinophils, follicular dendritic cells and platelets.

This is a B-cell antibody that is useful for differentiating between B-CLL and B-SLL's that are CD23-positive from Mantle-cell Lymphomas and Small-Cleaved Lymphomas that are CD23-negative. This antibody reacts with the antigen that is found on a subpopulation of peripheral blood cells, B-lymphocytes and on EBV-transformed B-lymphoblastoid cell lines.

ANTIBODY TYPE *Mouse Monoclonal*
CLONE *1B12*
ISOTYPE *IgG1/K*
CONTROL *Tonsil, Lymph Node*
LOCALIZATION *Membranous*

CAT. #	PRESENTATION	VOL/QTY
BSB 5204	Tinto Prediluted	3.0 ml
BSB 5205	Tinto Prediluted	7.0 ml
BSB 5206	Tinto Prediluted	15.0 ml
BSB 5207	Concentrated	0.1 ml
BSB 5208	Concentrated	0.5 ml
BSB 5209	Concentrated	1.0 ml
BSB 5210	control slides	5

CD23, RMab



IHC of CD23 on an FFPE Lymphoma Tissue

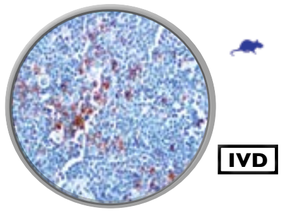
CD23, also known as Fc epsilon RII, is the "low affinity" receptor for IgE, an antibody isotype involved in allergy and (arguably) resistance to parasites, and is important in regulation of IgE levels. Unlike many of the antibody receptors, CD23 is a C-type lectin. It is found on mature B-cells, activated macrophages, eosinophils, follicular dendritic cells and platelets.

This is a B-cell antibody that is useful for differentiating between B-CLL and B-SLL's that are CD23-positive from Mantle-cell Lymphomas and Small-Cleaved Lymphomas that are CD23- negative. This antibody reacts with the antigen that is found on a subpopulation of peripheral blood cells, B-lymphocytes and on EBV-transformed B-lymphoblastoid cell lines.

ANTIBODY TYPE *Rabbit Monoclonal*
CLONE *EP75**
ISOTYPE *IgG*
CONTROL *Tonsil, Lymph Node*
LOCALIZATION *Membranous*

CAT. #	PRESENTATION	VOL/QTY
BSB 6471	Tinto Prediluted	3.0 ml
BSB 6472	Tinto Prediluted	7.0 ml
BSB 6473	Tinto Prediluted	15.0 ml
BSB 6474	Concentrated	0.1 ml
BSB 6475	Concentrated	0.5 ml
BSB 6476	Concentrated	1.0 ml
BSB 6477	control slides	5

CD25



IHC of CD19 on an FFPE Lung Carcinoma Tissue

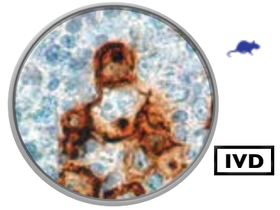
CD25 is the alpha chain of the IL-2 receptor. It is a Type I transmembrane protein present on activated T-cells, activated B-cells, some thymocytes, myeloid precursors, and oligodendrocytes that associates with CD122 to form a heterodimer that can act as a high-affinity receptor for IL-2. It is expressed in most B-cell neoplasms, some Acute Non-lymphocytic Leukemias, and Neuroblastomas.

Expression of CD25 is a reliable diagnostic tool for distinguishing neoplastic mast-cell aggregates from reactive proliferations, and has, therefore, recently become a minor criterion for the diagnosis of Systemic Mastocytosis (SM). Anti-CD25 antibodies have also been useful in identifying mast cells in skin biopsies in the setting of Urticaria Pigmentosa, which is predictive of Systemic Mastocytosis. Quantitation of regulatory T-cells (Treg) in the setting of hepatocellular carcinoma has been used as an independent predictive factor for tumor recurrence after hepatic resection for HCC. Also, the percentage of tumor-infiltrating CD25+FOXP3+ regulatory T-cells among tumor cells, inside tumor parenchyma and at its periphery are significantly higher in recurrent Cutaneous Melanoma than in Non-recurrent Melanoma.

ANTIBODY TYPE *Mouse Monoclonal*
CLONE *4C9*
ISOTYPE *IgG2b*
CONTROL *Mastocytosis, Tonsil, Small Bowel*
LOCALIZATION *Cytoplasmic, Membranous*

CAT. #	PRESENTATION	VOL/QTY
BSB 6317	Tinto Prediluted	3.0 ml
BSB 6318	Tinto Prediluted	7.0 ml
BSB 6319	Tinto Prediluted	15.0 ml
BSB 6320	Concentrated	0.1 ml
BSB 6321	Concentrated	0.5 ml
BSB 6322	Concentrated	1.0 ml
BSB 6323	control slides	5

CD30



IHC of CD30 on an FFPE Hodgkin's Lymphoma Tissue

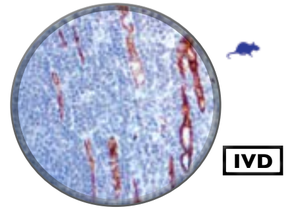
CD30 is a transmembrane cytokine receptor belonging to the tumor necrosis factor (TNF) receptor superfamily. Mature CD30 has a molecular mass of 120 kDa and is derived from a 90 kDa precursor protein.

CD30 antibody detects an epitope which is expressed by Reed-Sternberg cells in Hodgkin's Disease, the majority of Anaplastic Large-cell Lymphomas, and in Embryonal Carcinomas and Seminomas. This antibody also stains plasma cells intensely in paraffin-embedded tissue.

ANTIBODY TYPE *Mouse Monoclonal*
CLONE *Ber-H2*
ISOTYPE *IgG1/K*
CONTROL *Hodgkin's Lymphoma*
LOCALIZATION *Membranous*

CAT. #	PRESENTATION	VOL/QTY
BSB 5211	Tinto Prediluted	3.0 ml
BSB 5212	Tinto Prediluted	7.0 ml
BSB 5213	Tinto Prediluted	15.0 ml
BSB 5214	Concentrated	0.1 ml
BSB 5215	Concentrated	0.5 ml
BSB 5216	Concentrated	1.0 ml
BSB 5217	control slides	5

CD31



IHC of CD31 on an FFPE Tonsil Tissue

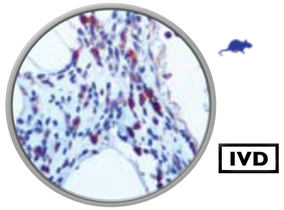
CD31 is also called PECAM-1 for platelet endothelial cell-adhesion molecule. It plays a key role in removing aged neutrophils from the body. CD-31 is normally found on stem cells, endothelial cells, platelets, macrophages and Kupffer cells, granulocytes, T/NK cells, lymphocytes, megakaryocytes, fibroblasts, osteoclasts and neutrophils. CD-31 is also expressed in certain tumors, including Epithelioid Hemangioendothelioma, Epithelioid Sarcoma-like Hemangioendothelioma, other vascular tumors, Histiocytic malignancies, and Plasmacytomas. It is rarely found in some sarcomas and carcinomas. CD-31 and macrophages play a key role in tissue regeneration.

CD31 is widely used to identify the vascular origin of neoplasms, as it is a highly specific and sensitive marker for vascular endothelial cells.

ANTIBODY TYPE *Mouse Monoclonal*
CLONE *1A10*
ISOTYPE *IgG1/K*
CONTROL *Tonsil, Placenta, Appendix*
LOCALIZATION *Cytoplasmic, Membranous*

CAT. #	PRESENTATION	VOL/QTY
BSB 5218	Tinto Prediluted	3.0 ml
BSB 5219	Tinto Prediluted	7.0 ml
BSB 5220	Tinto Prediluted	15.0 ml
BSB 5221	Concentrated	0.1 ml
BSB 5222	Concentrated	0.5 ml
BSB 5223	Concentrated	1.0 ml
BSB 5224	control slides	5

CD33



IHC of CD33 on an FFPE Tonsil Tissue

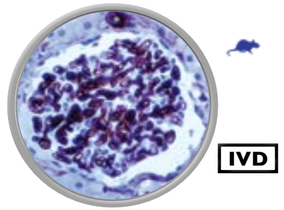
CD33 (gp62 or siglec-3) is a glycosylated transmembrane protein that is a membre of the sialic acid-binding immunoglobulin-like lectin (siglec) family. The genomic locus of this protein has been mapped to chromosome 19q13.1-3.5. The function of CD33 is not known, but it may have a role in cell-to-cell adhesion. In maturing granulocytic cells, there is progressive down-regulation of CD33 from the blast stage to mature neutrophils. However, in monocytes and macrophages/histiocytes, strong expression of CD33 is maintained throughout maturation.

Detection of CD33 using monoclonal antibodies has been a critical component in immunophenotyping acute leukemias, particularly Acute Myeloid Leukemias.

ANTIBODY TYPE *Mouse Monoclonal*
CLONE *PWS44*
ISOTYPE *IgG2b*
CONTROL *Acute Myeloid Leukemia, Placenta*
LOCALIZATION *Membranous*

CAT. #	PRESENTATION	VOL/QTY
BSB 6513	Tinto Prediluted	3.0 ml
BSB 6514	Tinto Prediluted	7.0 ml
BSB 6515	Tinto Prediluted	15.0 ml
BSB 6516	Concentrated	0.1 ml
BSB 6517	Concentrated	0.5 ml
BSB 6518	Concentrated	1.0 ml
BSB 6519	control slides	5

CD34



IHC of CD34 on an FFPE Kidney Tissue

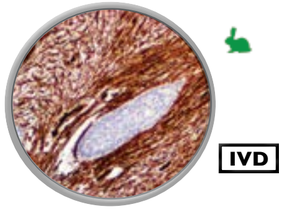
CD34 functions as a cell-cell adhesion factor and cell-surface glycoprotein. It may also mediate the attachment of stem cells to bone marrow extracellular matrixes or directly to stromal cells. Cells expressing CD34 are normally found in the umbilical cord and bone marrow as hematopoletic cells, and in vascular endothelium. In addition to stem cell recognition, CD34 is expressed by vascular endothelium; it appears that proliferating endothelial cells express this molecule in greater amounts than resting cells. In comparison to factor VIII R Antigen, CD34 stains are stronger and appear to be more sensitive in nature.

In tumors, CD34 is found in Alveolar Soft Part Sarcoma, pre B-ALL (positive in 75%), AML (40%), AMLM7 (most), Dermatofibrosarcoma Protuberans, Gastrointestinal Stromal Tumors, Giant Cell Fibroblastoma, Granulocytic Sarcoma, Kaposi's Sarcoma, Liposarcoma, Malignant Fibrous Histiocytoma, Malignant Peripheral Nerve Sheath tumors, Mengingeal Hemangiopericytomas, Meningiomas, Neurofibromas, Schwannomas, and Papillary Thyroid Carcinoma. A negative CD34 may exclude Ewing's Sarcoma/PNET, Myofibrosarcoma of the breast, and Inflammatory Myofibroblastic tumors of the stomach.

ANTIBODY TYPE *Mouse Monoclonal*
CLONE *QBEnd/10*
ISOTYPE *IgG1*
CONTROL *Tonsil, Placenta, Appendix*
LOCALIZATION *Membranous*

CAT. #	PRESENTATION	VOL/QTY
BSB 5225	Tinto Prediluted	3.0 ml
BSB 5226	Tinto Prediluted	7.0 ml
BSB 5227	Tinto Prediluted	15.0 ml
BSB 5228	Concentrated	0.1 ml
BSB 5229	Concentrated	0.5 ml
BSB 5230	Concentrated	1.0 ml
BSB 5231	control slides	5

CD34, RMab



IHC of CD34 on a FFPE Dermatofibrosarcoma Protuberans

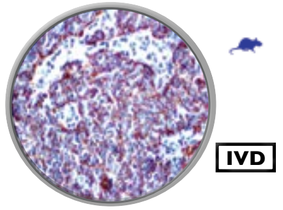
CD34 functions as a cell-cell adhesion factor and cell-surface glycoprotein. It may also mediate the attachment of stem cells to bone marrow extracellular matrixes or directly to stromal cells. Cells expressing CD34 are normally found in the umbilical cord and bone marrow as hematopoletic cells, and in vascular endothelium. In addition to stem cell recognition, CD34 is expressed by vascular endothelium; it appears that proliferating endothelial cells express this molecule in greater amounts than resting cells. In comparison to factor VIII R Antigen, CD34 stains are stronger and appear to be more sensitive in nature.

In tumors, CD34 is found in Alveolar Soft Part Sarcoma, pre B-ALL (positive in 75%), AML(40%), AMLM7 (most), Dermatofibrosarcoma Protuberans, Gastrointestinal Stromal Tumors, Giant Cell Fibroblastoma, Granulocytic Sarcoma, Kaposi's Sarcoma, Liposarcoma, Malignant Fibrous Histiocytoma, Malignant Peripheral Nerve Sheath tumors, Mengingeal Hemangiopericytomas, Meningiomas, Neurofibromas, Schwannomas, and Papillary Thyroid Carcinoma. A negative CD34 may exclude Ewing's Sarcoma/PNET, Myofibrosarcoma of the breast, and Inflammatory Myofibroblastic tumors of the stomach.

ANTIBODY TYPE *Rabbit Monoclonal*
CLONE *EP88**
ISOTYPE *IgG*
CONTROL *Tonsil, Placenta, Appendix*
LOCALIZATION *Membranous*

CAT. #	PRESENTATION	VOL/QTY
BSB 6485	Tinto Prediluted	3.0 ml
BSB 6486	Tinto Prediluted	7.0 ml
BSB 6487	Tinto Prediluted	15.0 ml
BSB 6488	Concentrated	0.1 ml
BSB 6489	Concentrated	0.5 ml
BSB 6490	Concentrated	1.0 ml
BSB 6491	control slides	5

CD35



IHC of CD35 on an FFPE Tonsil Tissue

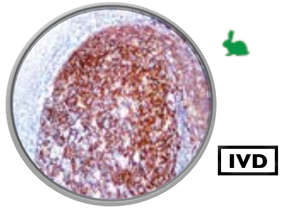
CD35 (erythrocyte complement receptor 1 or CR1, also known as C3b/C4b receptor and immune adherence receptor) serves as the main system for processing and clearance of complement-opsonized immune complexes. The number of CR1 molecules decreases with aging of erythrocytes in normal individuals and is also decreased in pathological conditions such as Systemic Lupus Erythematosus (SLE), HIV infection, some Hemolytic Anemias and other conditions featuring immune complexes.

Anti-CD35 is considered a mature B-cell marker, which labels follicular dendritic reticulum cells and tumors derived from such cells such as Follicular Dendritic Cell Tumor/Sarcoma. CD35 antigen is found in erythrocytes, B-cells, and a subset of T-cells, monocytes, as well as in eosinophils and neutrophils.

ANTIBODY TYPE *Mouse Monoclonal*
CLONE *RLB25*
ISOTYPE *IgG2b*
CONTROL *Tonsil, Lymph Node*
LOCALIZATION *Membranous*

CAT. #	PRESENTATION	VOL/QTY
BSB 5232	Tinto Prediluted	3.0 ml
BSB 5233	Tinto Prediluted	7.0 ml
BSB 5234	Tinto Prediluted	15.0 ml
BSB 5235	Concentrated	0.1 ml
BSB 5236	Concentrated	0.5 ml
BSB 5237	Concentrated	1.0 ml
BSB 5238	control slides	5

CD35, RMab



IHC of CD35 on an FFPE Tonsil Tissue

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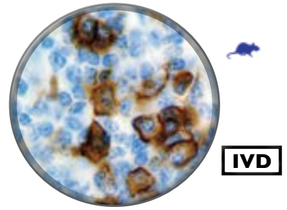
Anti-CD35 is considered a mature B-cell marker, which labels follicular dendritic reticulum cells and tumors derived from such cells such as Follicular Dendritic Cell Tumor/Sarcoma. CD35 antigen is found in erythrocytes, B-cells, and a subset of T-cells, monocytes, as well as in eosinophils and neutrophils.

ANTIBODY TYPE *Rabbit Monoclonal*
CLONE *EP197**
ISOTYPE *IgG*
CONTROL *Tonsil, Lymph Node*
LOCALIZATION *Membranous*

CAT. #	PRESENTATION	VOL/QTY
BSB 6492	Tinto Prediluted	3.0 ml
BSB 6493	Tinto Prediluted	7.0 ml
BSB 6494	Tinto Prediluted	15.0 ml
BSB 6495	Concentrated	0.1 ml
BSB 6496	Concentrated	0.5 ml
BSB 6497	Concentrated	1.0 ml
BSB 6498	control slides	5

CD38



IHC of CD38 on an FFPE Tonsil Tissue

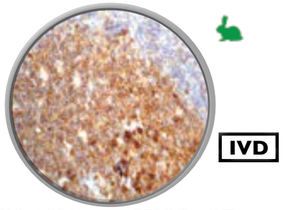
CD38 is a glycoprotein found on the surface of many immune cells (white blood cells), including CD4+, CD8+, B and natural killer cells. It is a marker of cell activation. The CD38 protein has been connected to HIV infection, Leukemias, Myelomas, solid tumors, Type II Diabetes Mellitus and bone metabolism, as well as some genetically-determined conditions. It has also been used as a prognostic marker in Leukemia. CD38 is highly expressed on thymocytes. It is also expressed by early cells of B and T lineages, NK cells, plasma cells, monocytes and macrophages, and may be detected on cells from Multiple Myeloma, ALL (B and T) and some AML.

Monoclonal antibodies to CD38 have been shown to be useful in subtyping of Lymphomas and Leukemias, inhibition of B-lymphopoiesis, detection of plasma cells, protection of B-cells from apoptosis, and as a marker for activated B and T-cell proliferation.

ANTIBODY TYPE *Mouse Monoclonal*
CLONE *SPC32*
ISOTYPE *IgG1*
CONTROL *Tonsil, Lymph Node*
LOCALIZATION *Membranous*

CAT. #	PRESENTATION	VOL/QTY
BSB 6198	Tinto Prediluted	3.0 ml
BSB 6199	Tinto Prediluted	7.0 ml
BSB 6220	Tinto Prediluted	15.0 ml
BSB 6201	Concentrated	0.1 ml
BSB 6202	Concentrated	0.5 ml
BSB 6203	Concentrated	1.0 ml
BSB 6204	control slides	5

CD38, RMab



IHC of CD38 on an FFPE Tonsil Tissue

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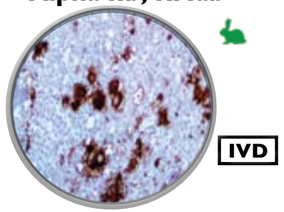
Monoclonal antibodies to CD38 have been shown to be useful in subtyping of Lymphomas and Leukemias, inhibition of B-lymphopoiesis, detection of plasma cells, protection of B-cells from apoptosis, and as a marker for activated B and T-cell proliferation.

ANTIBODY TYPE	*Rabbit Monoclonal*
CLONE	*EP135*
ISOTYPE	*IgG*
CONTROL	*Tonsil, Lymph Node*
LOCALIZATION	*Membranous*

CAT. #	PRESENTATION	VOL/QTY
BSB 6499	Tinto Prediluted	3.0 ml
BSB 6500	Tinto Prediluted	7.0 ml
BSB 6501	Tinto Prediluted	15.0 ml
BSB 6502	Concentrated	0.1 ml
BSB 6503	Concentrated	0.5 ml
BSB 6504	Concentrated	1.0 ml
BSB 6505	control slides	5

CD41/Integrin Alpha IIb, RMab



IHC of CD41/Integrin alpha IIb on an FFPE Bone Marrow Tissue

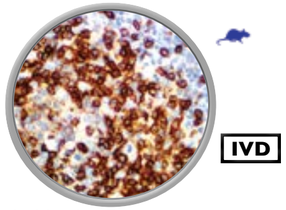
ITGA2B encodes CD41, or integrin alpha IIb. Integrins are heterodimeric integral membrane proteins composed of an alpha chain and a beta chain. Alpha chain IIb undergoes post-translational cleavage to yield disulfide-linked light and heavy chains that join with beta 3 to form a fibrinogen receptor expressed in platelets that plays a crucial role in coagulation. Mutations that interfere with this role result in thrombasthenia. In addition to adhesion, integrins are known to participate in cell-surface medicated signalling.

CD41 expression has been found on platelets, megakaryocyes, and immature hematopoietic progenitors.

ANTIBODY TYPE	*Rabbit Monoclonal*
CLONE	*EP178**
ISOTYPE	*IgG*
CONTROL	*Spleen*
LOCALIZATION	*Membranous, Cytoplasmic*

CAT. #	PRESENTATION	VOL/QTY
BSB 6506	Tinto Prediluted	3.0 ml
BSB 6507	Tinto Prediluted	7.0 ml
BSB 6508	Tinto Prediluted	15.0 ml
BSB 6509	Concentrated	0.1 ml
BSB 6510	Concentrated	0.5 ml
BSB 6511	Concentrated	1.0 ml
BSB 6512	control slides	5

CD43



IHC of CD43 on an FFPE Tonsil Tissue

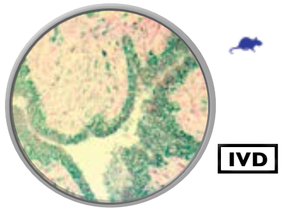
CD43 (leukosialin, sialophorin, or leukocyte sialoglycoprotein) is one of the major glycoproteins expressed in all thymocytes and T-cells. It plays a role in the physiochemical properties of the T-cell surface and in lectin binding. During T-cell activation, CD43 is actively removed from the T-cell antigen-presenting cell contact site, suggesting a negative regulatory role in adaptive immune response.

This antibody has been found useful in identification and classification of T-cell malignancies and low grade B-cell Lymphomas. CD43 expression is seen in some cases of B-cell Lymphocytic Lymphoma and Centrocytic Lymphoma. When used in combination with CD45 and CD20, effective immunophenotyping of the majority of Lymphomas can be obtained. Co-staining of a lymphoid infiltrate with CD20 and CD3 argues against a reactive process and favors Lymphoma.

ANTIBODY TYPE	*Mouse Monoclonal*
CLONE	*MT1*
ISOTYPE	*IgG1*
CONTROL	*Tonsil, Lymph Node*
LOCALIZATION	*Membranous*

CAT. #	PRESENTATION	VOL/QTY
BSB 5239	Tinto Prediluted	3.0 ml
BSB 5240	Tinto Prediluted	7.0 ml
BSB 5241	Tinto Prediluted	15.0 ml
BSB 5242	Concentrated	0.1 ml
BSB 5243	Concentrated	0.5 ml
BSB 5244	Concentrated	1.0 ml
BSB 5245	control slides	5

CD44



IHC of CD44 on an FFPE Breast Fibroadenoma Tissue

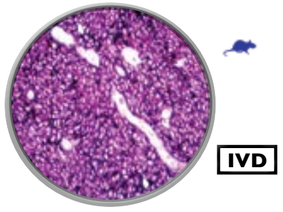
The CD44 protein is a cell-surface glycoprotein involved in cell-cell interactions, cell adhesion and migration. CD44 is also known as Homing-cell adhesion molecule (H-CAM) and Phagocytic glycoprotein-1 (PgP-1). A specialized sialofucosylated glycoform of CD44 called HCELL is found natively on human hematopoietic stem cells and functions as a "bone-homing receptor", directing migration of human hematopoietic stem cells and mesenchymal stem cells to bone marrow.

This protein participates in a wide variety of cellular functions including lymphocyte activation, recirculation and homing, hematopoiesis, and tumor metastasis. Transcripts for this gene undergo complex alternative splicing that results in many functionally distinct isoforms; however, the full-length nature of some of these variants has not been determined. Splice variants of CD44 on Colon Cancer cells display the HCELL glycoform, which mediates binding to vascular E-selectin under hemodynamic flow conditions, a critical step in Colon Cancer metastasis. In addition, variations in CD44 are reported as cell surface markers for some breast and prostate cancer stem cells and have been seen as an indicator of increased survival time in Epithelial Ovarian Cancer patients.

ANTIBODY TYPE	*Mouse Monoclonal*
CLONE	*MRQ-13*
ISOTYPE	*IgG2a*
CONTROL	*Tonsil, Kidney, Esophageal Ca.*
LOCALIZATION	*Membranous*

CAT. #	PRESENTATION	VOL/QTY
BSB 6233	Tinto Prediluted	3.0 ml
BSB 6234	Tinto Prediluted	7.0 ml
BSB 6235	Tinto Prediluted	15.0 ml
BSB 6236	Concentrated	0.1 ml
BSB 6237	Concentrated	0.5 ml
BSB 6238	Concentrated	1.0 ml
BSB 6239	control slides	5

CD45



IHC of CD45 on an FFPE Tonsil Tissue

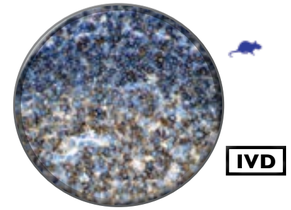
The CD45 antigen is a protein which was originally called Leukocyte Common Antigen. It is a Type I transmembrane protein which is in various forms present on all differentiated hematopoietic cells except erythrocytes and assists in the activation of those cells (a form of co-stimulation). It is expressed in Lymphomas, B-cell Chronic Lymphocytic Leukemia, Hairy Cell Leukemia, and Acute Non-lymphocytic Leukemia.

CD45 is a monoclonal antibody that is routinely used to aid in the differential diagnosis of undifferentiated neoplasms, whenever malignant Lymphoma is suspected by the morphological or clinical data. It is a highly specific antibody; thus, a positive result is highly indicative of lymphoid or myeloid origin. Certain types of lymphoid neoplasms may lack CD45 (Hodgkin's Disease, some T-cell Lymphomas and some Leukemias) so its absence does not rule out a hematolymphoid tumor. This antibody is exclusively expressed by cells of hematopoietic lineage and is present in most benign and malignant lymphocytes, erythrocytes and plasma cell precursors.

ANTIBODY TYPE	*Mouse Monoclonal*
CLONE	*2B11 & PD7/26*
ISOTYPE	*IgG1/K*
CONTROL	*Tonsil, Lymph Node*
LOCALIZATION	*Membranous*

CAT. #	PRESENTATION	VOL/QTY
BSB 5246	Tinto Prediluted	3.0 ml
BSB 5247	Tinto Prediluted	7.0 ml
BSB 5248	Tinto Prediluted	15.0 ml
BSB 5249	Concentrated	0.1 ml
BSB 5250	Concentrated	0.5 ml
BSB 5251	Concentrated	1.0 ml
BSB 5252	control slides	5

CD45R



IHC of CD45R on an FFPE Tonsil Tissue

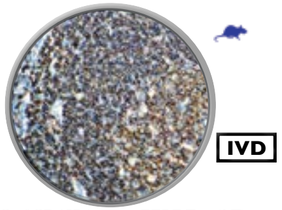
CD45R contains an extracellular domain, a single transmembrane segment and two tandem intracytoplasmic catalytic domains. It is specifically expressed in hematopoietic cells and has been shown to be an essential regulator of T and B-cell antigen-receptor signaling. It functions through either direct interaction with components of the antigen receptor complexes, or by activating various Src family kinases required for the antigen-receptor signaling. CD45R also suppresses JAK kinases, and thus functions as a regulator of cytokine-receptor signaling.

CD45R represents a restricted form of the CD45 family, which primarily recognizes only cells of B lineage from proB-cell through mature B lymphocytes and, prior to the availability of anti-CD19 MAbs, was commonly used as a pan B-cell marker. It also reacts with certain activated T-cells, as well as non-MHC restricted lytically active lymphokine-activated killer (LAK) cells. MB1 antibody stains preferentially B-cells and their neoplasms but is less specific, as it will also react with some T-cell Lymphomas and Non-lymphoid Tumors. The antigen for this antibody is in the membrane of all B-cells with the exception of plasma cells and some mature T-cells.

ANTIBODY TYPE	*Mouse Monoclonal*
CLONE	*MB1*
ISOTYPE	*IgG1*
CONTROL	*Tonsil, Lymph Node*
LOCALIZATION	*Membranous*

CAT. #	PRESENTATION	VOL/QTY
BSB 6254	Tinto Prediluted	3.0 ml
BSB 6255	Tinto Prediluted	7.0 ml
BSB 6256	Tinto Prediluted	15.0 ml
BSB 6257	Concentrated	0.1 ml
BSB 6258	Concentrated	0.5 ml
BSB 6259	Concentrated	1.0 ml
BSB 6260	control slides	5

CD45RA



IHC of CD45RA on an FFPE Tonsil Tissue

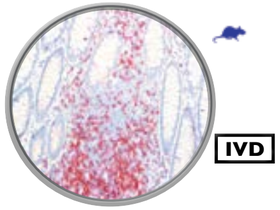
CD45 is a complex molecule and is comprised of different glycoproteins ranging from 180-240 kDa. Expression of CD45 is found on all hemopoietic cells. Detection of the different isoforms can distinguish between different cell forms (e.g., naive T-cells and memory T-cells). CD45RA is an isoform of the CD45 complex and has restricted expression between different subtypes of lymphoid cells.

CD45RA antibody reacts with mature, non-activated T and B-cells. CD45RA is also reactive with medullary thymocytes, mantle-zone lymphocytes in follicles of lymph nodes, spleen and lymphocytes of the paracortex. CD45RA shows no reactivity with cortical thymocytes, immature T-cells or activated B-cells in germinal centers.

ANTIBODY TYPE *Mouse Monoclonal*
CLONE *4KB5*
ISOTYPE *IgG1/K*
CONTROL *Tonsil, Lymph Node*
LOCALIZATION *Membranous*

CAT. #	PRESENTATION	VOL/QTY
BSB 5253	Tinto Prediluted	3.0 ml
BSB 5254	Tinto Prediluted	7.0 ml
BSB 5255	Tinto Prediluted	15.0 ml
BSB 5256	Concentrated	0.1 ml
BSB 5257	Concentrated	0.5 ml
BSB 5258	Concentrated	1.0 ml
BSB 5259	control slides	5

CD45RO



IHC of CD45 on an FFPE Colon Tissue

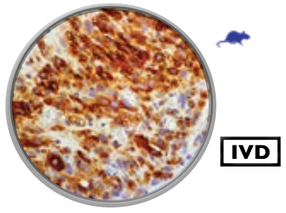
The CD45 family consists of multiple members that are all products of a single complex gene. Three isoforms of CD45 exist: on B-lymphocytes, where the protein is called B220 (its molecular mass is 220 kDA); on naive T-lymphocytes, where it is called CD45 RA, and on activated and memory T-lymphocytes, where it is called CD45 RO. CD45RO is a single-chain, transmembraneous glycoprotein which represents the low molecular weight isoform of the Leukocyte Common Antigen (LCA). It is expressed on most thymocytes, about 45% of peripheral blood T-cells, virtually all T-cells in skin reactive infiltrates, and the majority of T-cell malignancies. It is also found on a subset of B-cells and on exceptional B-cell Lymphomas.

CD45RO (T-Cell, Pan) antibody reacts with thymocytes and activated T-cells, but only on a subpopulation of resting T-cells. This antibody shows no reactivity with B-cells, making it a good marker for T-cell tumors to be phenotyped. In addition, granulocytes and monocytes are also labeled with this antibody. T-Cell, Pan has been designated as CD45RO at The International Leukocyte Typing Workshop.

ANTIBODY TYPE *Mouse Monoclonal*
CLONE *UCHL-1*
ISOTYPE *IgG2a/K*
CONTROL *Tonsil, Lymph Node*
LOCALIZATION *Membranous*

CAT. #	PRESENTATION	VOL/QTY
BSB 5260	Tinto Prediluted	3.0 ml
BSB 5261	Tinto Prediluted	7.0 ml
BSB 5262	Tinto Prediluted	15.0 ml
BSB 5263	Concentrated	0.1 ml
BSB 5264	Concentrated	0.5 ml
BSB 5265	Concentrated	1.0 ml
BSB 5266	control slides	5

CD56



IHC of CD56 on an FFPE Neuroblastoma Tissue

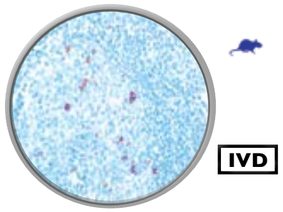
CD56 or Neural-Cell Adhesion Molecule (NCAM) is a homophilic binding glycoprotein expressed on the surface of neurons, glia and skeletal muscle. CD56 has been implicated in cell-cell adhesion, neurite outgrowth, synaptic plasticity, and learning and memory.

Normal cells that stain positively for CD56 include NK cells, activated T-cells, brain and cerebellum, and neuroendocrine tissues. Tumors that are CD56-positive are Myeloma, Myeloid Leukemia, Neuroendocrine tumors, Wilm's Tumor, Adult Neuroblastoma, NK/T cell Lymphomas, Pancreatic Acinar-cell Carcinoma, Pheochromocytoma, and Small-cell Lung Carcinoma. It is also expressed on some mesodermally-derived tumors (Rhabdomyosarcoma). Ewing's Sarcoma/PNET is CD56-negative.

ANTIBODY TYPE *Mouse Monoclonal*
CLONE *123C3.D5*
ISOTYPE *IgG1/K*
CONTROL *Neuroblastoma, Pancreas*
LOCALIZATION *Membranous*

CAT. #	PRESENTATION	VOL/QTY
BSB 5267	Tinto Prediluted	3.0 ml
BSB 5268	Tinto Prediluted	7.0 ml
BSB 5269	Tinto Prediluted	15.0 ml
BSB 5270	Concentrated	0.1 ml
BSB 5271	Concentrated	0.5 ml
BSB 5272	Concentrated	1.0 ml
BSB 5273	control slides	5

CD57



IHC of CD57 on an FFPE Tonsil Tissue

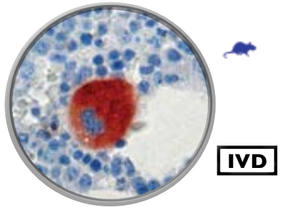
CD57 (NK-1) recognizes an oligosaccharide (MW 100-110 kDa) antigenic determinant on myeloid cells and on a variety of polypeptides, lipids and chondroitan sulfate proteoglycans. This surface antigen is associated with myelin-associated glycoprotein (MAG). The CD57 antigen is present on 15-20% of normal peripheral blood mononuclear cells. It is expressed on a subset of natural killer cells (60%) and on a subset of T-lymphocytes. This carbohydrate is also present on N-CAM in the nervous system.

Follicular Center-cell Lymphomas often contain many NK cells within the neoplastic follicles. NK-1 reportedly also reacts with a variety of cell types in non-lymphoid tissues. NK-1 stains neuroendocrine cells and their tumors, including Carcinoid Tumor and Medulloblastomas. NK-1 also reacts with a variety of cell types in non-lymphoid tissues, including Neurofibroma, Ganglioneuroma, and Prostate Carcinoma.

ANTIBODY TYPE *Mouse Monoclonal*
CLONE *CD57/B8*
ISOTYPE *IgM/K*
CONTROL *Tonsil, Lymph Node*
LOCALIZATION *Membranous*

CAT. #	PRESENTATION	VOL/QTY
BSB 5274	Tinto Prediluted	3.0 ml
BSB 5275	Tinto Prediluted	7.0 ml
BSB 5276	Tinto Prediluted	15.0 ml
BSB 5277	Concentrated	0.1 ml
BSB 5278	Concentrated	0.5 ml
BSB 5279	Concentrated	1.0 ml
BSB 5280	control slides	5

CD61



IHC of CD61 on an FFPE Bone Marrow Tissue

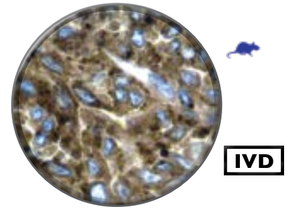
CD61 is a glycoprotein found on megakaryocytes (bone marrow cells), platelets and their precursors. CD61 antigen plays a role in platelet aggregation and also as a receptor for fibrinogen, fibronectin, von Willebrand factor and vitronectrin.

CD61 labels the IIIa subunit of the noncovalently-linked glycoprotein heterodimer IIb/IIIa complex present on human platelets and their precursors. This antibody is useful in identifying megakaryoblastic differentiation as seen in Megakaryoblastic Leukemia.

ANTIBODY TYPE *Mouse Monoclonal*
CLONE *2f2*
ISOTYPE *IgG1/K*
CONTROL *Bone Marrow*
LOCALIZATION *Cytoplasmic*

CAT. #	PRESENTATION	VOL/QTY
BSB 5281	Tinto Prediluted	3.0 ml
BSB 5282	Tinto Prediluted	7.0 ml
BSB 5283	Tinto Prediluted	15.0 ml
BSB 5284	Concentrated	0.1 ml
BSB 5285	Concentrated	0.5 ml
BSB 5286	Concentrated	1.0 ml
BSB 5287	control slides	5

CD63



HC of CD63 on an FFPE Melanoma Tissue

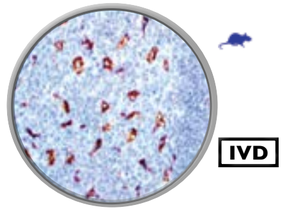
The protein encoded by CD63 gene is a member of the transmembrane-4 superfamily, also known as the tetraspanin family, and mediates signal-transduction events that play a role in the regulation of cell development, activation, growth and motility. This encoded protein is a cell-surface glycoprotein that is known to complex with integrins. It may function as a blood-platelet activation marker. Deficiency of this protein is associated with Hermansky-Pudlak Syndrome. This gene has been associated with tumor progression. CD63 is a good marker for flow-cytometric quantification of in vitro-activated basophils for diagnosis of IgE-mediated allergy. The test is commonly designated as a basophil activation test.

Anti-CD63 reacts with a 53 kDa protein. The antigen was originally designated as a lysosomal membrane protein characterized as an activation-dependent platelet surface antigen. In fact, the CD63 antigen has a diverse distribution on the surface and in the cytoplasm of many cell types including lymphoid, myeloid and endothelial cells and Melanoma. It is weakly expressed in granulocytes, B and T-cells. It has been quite useful in identifying Malignant Melanoma. CD63 is thought to be associated with the early stages of Melanoma tumor progression (in regulation of motility and adhesion of Melanoma cells).

ANTIBODY TYPE *Mouse Monoclonal*
CLONE *NKI/C3*
ISOTYPE *IgG1/K*
CONTROL *Malignant Melanoma*
LOCALIZATION *Cytoplasmic, Membranous*

CAT. #	PRESENTATION	VOL/QTY
BSB 6296	Tinto Prediluted	3.0 ml
BSB 6297	Tinto Prediluted	7.0 ml
BSB 6298	Tinto Prediluted	15.0 ml
BSB 6299	Concentrated	0.1 ml
BSB 6300	Concentrated	0.5 ml
BSB 6301	Concentrated	1.0 ml
BSB 6302	control slides	5

CD68



IHC of CD68 on an FFPE Tonsil Tissue

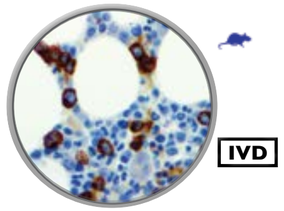
The CD68 antigen is a heavily glycosylated transmembrane protein of 87-115 kDa which is specifically expressed by tissue macrophages, Langerhans cells and, at low levels, by dendritic cells. CD68 could play a role in phagocytic activities of tissue macrophages, both in intracellular lysosomal metabolism and extracellular cell-cell and cell-pathogen interactions.

CD68 marks cells of monocyte/macrophage lineage. This antibody is capable of staining monocytes, Kupffer cells, osteoclasts, granulocytes and their precursors; Lymphomas are negative or show a few granules. This antibody may be useful for the identification of Myelomonocytic and Histiocytic Tumors. CD68 may help to distinguish Malignant Fibrous Histiocytoma from other Pleomorphic Sarcomas. However, since CD68 detects a formalin-resistant epitope that may be associated with lysosomal granules, other lysosome-rich cells may also produce positive results.

ANTIBODY TYPE *Mouse Monoclonal*
CLONE *CD68/G2*
ISOTYPE *IgG1*
CONTROL *Tonsil, Lymph Node*
LOCALIZATION *Cytoplasmic, Membranous*

CAT. #	PRESENTATION	VOL/QTY
BSB 5288	Tinto Prediluted	3.0 ml
BSB 5289	Tinto Prediluted	7.0 ml
BSB 5290	Tinto Prediluted	15.0 ml
BSB 5291	Concentrated	0.1 ml
BSB 5292	Concentrated	0.5 ml
BSB 5293	Concentrated	1.0 ml
BSB 5294	control slides	5

CD71



IHC of CD71 on an FFPE Bone Marrow Tissue

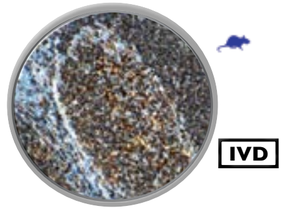
CD71, also known as Transferrin Receptor Protein 1 (TfR1) is a protein encoded by the TFRC gene. CD71 is required for iron delivery from transferrin to cells. It is most highly expressed on placental syncytiotrophoblasts, myocytes, basal keratinocytes, hepatocytes, endocrine pancreas, spermatocytes, and erythroid precursors. The level of transferrin receptor expression is highest in the early erythroid precursors through intermediate normoblast phase, after which expression decreasess through the reticulocyte phase.

The high level of CD71 within erythroid precursors makes it an excellent marker for erythroid components within bone marrow biopsy specimens without interference from mature erythrocytes. It may also be used in the determination of erythroid leukemia, benign erythroid proliferative disorders, and myelodysplastic syndrome.

ANTIBODY TYPE *Mouse Monoclonal*
CLONE *MRQ-48*
ISOTYPE *IgG1*
CONTROL *Bone Marrow*
LOCALIZATION *Cytoplasmic, Membranous*

CAT. #	PRESENTATION	VOL/QTY
BSB 6520	Tinto Prediluted	3.0 ml
BSB 6521	Tinto Prediluted	7.0 ml
BSB 6522	Tinto Prediluted	15.0 ml
BSB 6523	Concentrated	0.1 ml
BSB 6524	Concentrated	0.5 ml
BSB 6525	Concentrated	1.0 ml
BSB 6526	control slides	5

CD74



IHC of CD74 on an FFPE Tonsil Tissue

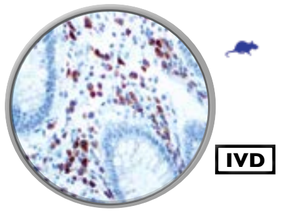
CD74, also known as the MHC Class II-associated invariant chain (Ii), is a Type II transmembrane protein which binds to the peptide-binding groove of newly-synthesized MHC class II alpha/beta heterodimers and prevents their premature association with endogenous polypeptides. CD74 is expressed primarily by antigen-presenting cells such as B-lymphocytes (from before the pre-B-cell stage to before the plasma-cell stage), macrophages and monocytes, together with many epithelial cells.

CD74 stains predominantly germinal-center lymphocytes and B-cell lymphomas but rarely T-cell lymphomas. It stains the cell membrane but a paranuclear globular labeling is also noted. CD74 is useful in differentiating Atypical Fibroxanthoma from Malignant Fibrous Histiocytoma, as well as Small-cell Lung Carcinoma from Non-small cell Lung Carcinomas.

ANTIBODY TYPE *Mouse Monoclonal*
CLONE *LN2*
ISOTYPE *IgG1*
CONTROL *Tonsil, Lymph Node*
LOCALIZATION *Cytoplasmic, Membranous*

CAT. #	PRESENTATION	VOL/QTY
BSB 5295	Tinto Prediluted	3.0 ml
BSB 5296	Tinto Prediluted	7.0 ml
BSB 5297	Tinto Prediluted	15.0 ml
BSB 5298	Concentrated	0.1 ml
BSB 5299	Concentrated	0.5 ml
BSB 5300	Concentrated	1.0 ml
BSB 5301	control slides	5

CD79a



IHC of CD79a on an FFPE Colon Tissue

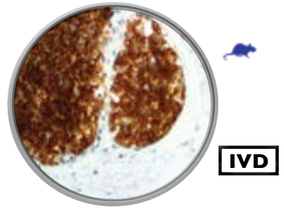
CD79a is non-covalently associated with membrane-bound immunoglobulins on B-cells to constitute the B-cell Ag receptor. CD79a first appears at pre B-cell stage and persists until the plasma-cell stage, where it is found as an intracellular component. CD79a is found in the majority of Acute Leukemias of precursor B-cell type, in B-cell lines, B-cell Lymphomas, and in some Myelomas.

CD79a is a B-cell marker that is generally used to complement CD20. This antibody will stain many of the same Lymphomas as CD20, but also stains more B-precursor Lymphoid Leukemias than CD20. CD79a also stains more cases of Plasma-cell Myeloma and occasionally some types of endothelial cells as well. CD79a will stain many cases of Acute Promyelocytic Leukemia (FAB-M3), but only rarely stains other types of Myeloid Leukemia.

ANTIBODY TYPE *Mouse Monoclonal*
CLONE *JCB117*
ISOTYPE *IgG1/K*
CONTROL *Tonsil, Lymph Node*
LOCALIZATION *Membranous*

CAT. #	PRESENTATION	VOL/QTY
BSB 5302	Tinto Prediluted	3.0 ml
BSB 5303	Tinto Prediluted	7.0 ml
BSB 5304	Tinto Prediluted	15.0 ml
BSB 5305	Concentrated	0.1 ml
BSB 5306	Concentrated	0.5 ml
BSB 5307	Concentrated	1.0 ml
BSB 5308	control slides	5

CD99



IHC of CD99 on an FFPE Thymus Tissue

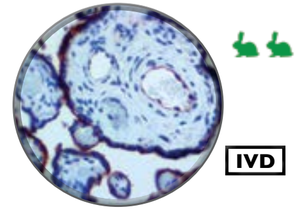
CD99, also known as MIC-2 or single-chain Type-1 glycoprotein, is a human protein encoded by the CD99 gene. The protein has a MW of 32 kD. It is expressed on all leukocytes but highest on thymocytes, and is believed to augment T-cell adhesion and apoptosis of double-positive T-cells. It also participates in migration and activation.

The CD99 antigen is found on the cell membrane of Ewing's Sarcoma and Primitive Peripheral Neuroectodermal Tumors (PNET). It is also present on a variety of other cell types including bone marrow, lymph nodes, spleen, cortical thymocytes, granulosa cells of the ovary, beta cells, CNS ependymal cells, Sertoli's cells of the testis and a few endothelial cells. Mature granulocytes, however, tend to express very little or no CD99. MIC-2 has also been identified in Lymphoblastic Lymphoma, Rhabdomyosarcoma, Mesenchymal Chondrosarcoma, and Thymoma.

ANTIBODY TYPE *Mouse Monoclonal*
CLONE *CD99/B5*
ISOTYPE *IgG1/K*
CONTROL *Ependyma, Pancreas, Ewing's Sarcoma, Thymus*
LOCALIZATION *Cytoplasmic, Membranous*

CAT. #	PRESENTATION	VOL/QTY
BSB 5309	Tinto Prediluted	3.0 ml
BSB 5310	Tinto Prediluted	7.0 ml
BSB 5311	Tinto Prediluted	15.0 ml
BSB 5312	Concentrated	0.1 ml
BSB 5313	Concentrated	0.5 ml
BSB 5314	Concentrated	1.0 ml
BSB 5315	control slides	5

CD105/Endoglin



IHC of CD105 on an FFPE Placenta Tissue

CD105/Endoglin is a Type I membrane glycoprotein located on cell surfaces and is part of the TGF beta receptor complex. This protein has been found on endothelial cells, activated macrophages, fibroblasts, and smooth-muscle cells. Endoglin has a role in the development of the cardiovascular system and in vascular remodeling. Its expression is regulated during heart development. In humans, Endoglin may be involved in the autosomal dominant disorder known as Hereditary Hemorrhagic Telangiectasia Type 1.

CD105 is highly expressed in endothelial cells during tumor angiogenesis and inflammation, with weak or negative expression in vascular endothelium of normal tissues. Angiogenesis is controlled by angiogenic factors, mostly secreted by tumor cells. Vascular Endothelial Growth Factor (VEGF) is a potent angiogenic growth factor that stimulates endothelial cell proliferation and induces microvessel permeability. Studies have demonstrated a correlation between VEGF expression and vascular density. Angiogenesis has been proposed as a promising prognostic marker in a variety of tumors. Most studies of angiogenesis have been done with pan-endothelial markers such as CD31 or CD34. Endoglin is a more specific and sensitive marker for tumor angiogenesis than CD31, as it labels only newly-formed blood vessels and may serve as a prognostic marker for Prostate Adenocarcinoma, and cancers of the lung, stomach, breast, and brain. CD105 may serve as a target for anti-angiogenesis therapy.

ANTIBODY TYPE *Rabbit Polyclonal*
CLONE *N/A*
ISOTYPE *IgG*
CONTROL *Tonsil, Renal Cell Carcinoma*
LOCALIZATION *Cytoplasmic*

CAT. #	PRESENTATION	VOL/QTY
BSB 6261	Tinto Prediluted	3.0 ml
BSB 6262	Tinto Prediluted	7.0 ml
BSB 6263	Tinto Prediluted	15.0 ml
BSB 6264	Concentrated	0.1 ml
BSB 6265	Concentrated	0.5 ml
BSB 6266	Concentrated	1.0 ml
BSB 6267	control slides	5

CD117, RMab

IHC of CD117 on an FFPE GIST Tissue

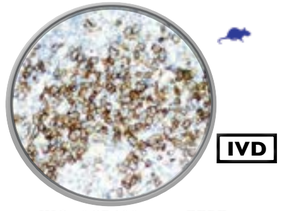
CD117 is a tyrosine-kinase receptor for stem cell factor (SCF), also known as "steel factor" or "c-kit ligand". C-kit is a polypeptide that activates bone marrow precursors of a number of blood cells, but its receptor is also present in other cells. C-kit mutations in the interstitial cells of Cajal in the digestive tract are probably the key to Gastrointestinal Stromal Tumors (GISTs).

CD117 is found on interstitial cells of Cajal, germ cells, bone marrow stem cells, melanocytes, breast epithelium and mast cells. This receptor is found on a wide variety of tumor cells (Follicular and Papillary Carcinoma of the Thyroid, Adenocarcinomas from endometrium, lung, ovary, pancreas, breast; Malignant Melanoma, Endodermal Sinus Tumor, Small-cell Carcinoma) but has been particularly useful in differentiating Gastrointestinal Stromal Tumors (GIST) from Kaposi's Sarcoma and tumors of smooth-muscle origin.

ANTIBODY TYPE *Rabbit Monoclonal*
CLONE *EP10**
ISOTYPE *IgG*
CONTROL *GIST, Skin, Testes, Breast*
LOCALIZATION *Cytoplasmic, Membranous*

CAT. #	PRESENTATION	VOL/QTY
BSB 5316	Tinto Prediluted	3.0 ml
BSB 5317	Tinto Prediluted	7.0 ml
BSB 5318	Tinto Prediluted	15.0 ml
BSB 5319	Concentrated	0.1 ml
BSB 5320	Concentrated	0.5 ml
BSB 5321	Concentrated	1.0 ml
BSB 5322	control slides	5

CD123, IL-3Ra



IHC of CD123 on an FFPE Kikuchi-Fujimoto Disease Tissue

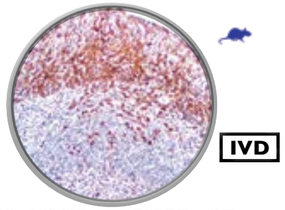
CD123 is α chain of the IL-3 receptor. This 60-70 kDa transmembrane protein, by itself, binds to IL-3 with rather low affinity. However, when associated with CD131 (common β chain), the protein binds to IL-3 with high affinity. The gene coding for the receptor is located in the pseudoautosomal region of the X and Y chromosomes. The receptor belongs to the Type I cytokine-receptor family and is a heterodimer with a unique alpha chain paired with the common beta (beta c or CDw131) subunit.

The CD123 receptor, found on pluripotent progenitor cells, induces tyrosine phosphorylation within the cell and promotes proliferation and differentiation within the hematopoietic cell lines. CD123 is expressed by myeloid precursors, macrophages, dendritic cells, mast cells, basophils, and megakaryocytes.

ANTIBODY TYPE *Mouse Monoclonal*
CLONE *CD123-D3*
ISOTYPE *IgG1/K*
CONTROL *Tonsil, Lymph Node, Kikuchi-Fujimoto Disease*
LOCALIZATION *Membranous*

CAT. #	PRESENTATION	VOL/QTY
BSB 5323	Tinto Prediluted	3.0 ml
BSB 5324	Tinto Prediluted	7.0 ml
BSB 5325	Tinto Prediluted	15.0 ml
BSB 5326	Concentrated	0.1 ml
BSB 5327	Concentrated	0.5 ml
BSB 5328	Concentrated	1.0 ml
BSB 5329	control slides	5

CD138



IHC of CD138 on an FFPE Tonsil Tissue

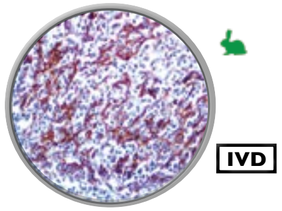
CD138/Syndecan-1 is a transmembrane heparin-sulphate proteoglycan which is made up of one core protein and five glycosaminoglycans. CD138 is expected to play a role in cell adhesion. It is expressed on the surface of pre B-cells and plasma cells but is absent from mature B-cells.

Anti-CD138/syndecan-1 is a useful marker for labeling normal and neoplastic plasma cells and Plasmacytoid Lymphomas. It is a selective marker for B-cell Lymphoblastic Leukemia and Lymphoplasmocytoid Leukemia. It is lost from the apoptotic myeloma cells, and thus, is a useful marker for viable Myeloma cells. Various forms of Hodgkin's Disease have also shown positive staining with this antibody.

ANTIBODY TYPE *Mouse Monoclonal*
CLONE *B-A38*
ISOTYPE *IgG1*
CONTROL *Tonsil, Plasmacytoma*
LOCALIZATION *Membranous*

CAT. #	PRESENTATION	VOL/QTY
BSB 5330	Tinto Prediluted	3.0 ml
BSB 5331	Tinto Prediluted	7.0 ml
BSB 5332	Tinto Prediluted	15.0 ml
BSB 5333	Concentrated	0.1 ml
BSB 5334	Concentrated	0.5 ml
BSB 5335	Concentrated	1.0 ml
BSB 5336	control slides	5

CD138, RMab



IHC of CD138 on an FFPE Tonsil Tissue

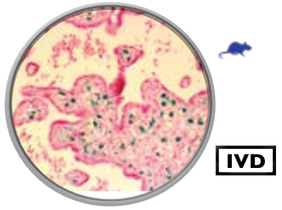
CD138/Syndecan-1 is a transmembrane heparin-sulphate proteoglycan consisting of one core protein and five glycosaminoglycans. CD138 is suspected to play a role in cell adhesion. It is expressed on the surface of pre B-cells and plasma cells but is absent from mature B-cells.

Anti-CD138/syndecan-1 is a useful marker for labeling normal and neoplastic plasma cells and Plasmacytoid Lymphomas. It is a selective marker for B-cell Lymphoblastic Leukemia and Lymphoplasmocytoid Leukemia. It is lost from the apoptotic myeloma cells, and thus, is a useful marker for viable Myeloma cells. Various forms of Hodgkin's Disease have also shown positive staining with this antibody.

ANTIBODY TYPE *Rabbit Monoclonal*
CLONE *EP201**
ISOTYPE *IgG*
CONTROL *Tonsil, Plasmacytoma*
LOCALIZATION *Membranous*

CAT. #	PRESENTATION	VOL/QTY
BSB 6527	Tinto Prediluted	3.0 ml
BSB 6528	Tinto Prediluted	7.0 ml
BSB 6529	Tinto Prediluted	15.0 ml
BSB 6530	Concentrated	0.1 ml
BSB 6531	Concentrated	0.5 ml
BSB 6532	Concentrated	1.0 ml
BSB 6533	control slides	5

CD163



IHC of CD163 on an FFPE Placenta Tissue

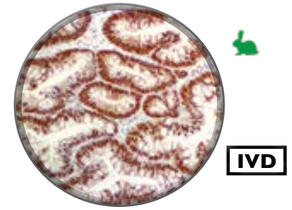
CD163 is a 130 kDa membrane glycoprotein. CD163 was recently identified as an acute phase-regulated transmembrane protein whose function is to mediate the endocytosis of haptoglobin-hemoglobin complexes. Solubilized in plasma, CD163 functions as an anti-inflammatory signal and has many roles in disease processes that range from autoimmune conditions such as Rheumatoid Arthritis to Atherosclerosis. CD163 is expressed exclusively on the cell surface of human monocytes and macrophages that evolve predominantly in the late phase of inflammation, and is, therefore, very useful for macrophage-phenotyping. This receptor is expressed on the surface of monocytes (low expression) and histiocytes (high expression).

Staining for CD163 has been helpful in distinguishing synovial macrophages from synovial intimal fibroblasts in the setting of Rheumatoid Arthritis, where its specificity for macrophages was found to be superior to that of CD68, which does not discriminate between these cell types. Flow-cytometry studies have confirmed that CD163 expression is limited to Leukemias with monocytic differentiation. Positive staining can be seen in the skin (histiocytes), gut, Kupffer cells, a few aveolar macrophages, the main population of macrophages in the placenta, and in varying degrees in macrophages in inflammed tissue including tumor tissue, depending on the inflammatory stage. Red-pulp, not white-pulp, macrophages in the spleen and cortical macrophages of the thymus are stained by CD163.

ANTIBODY TYPE *Mouse Monoclonal*
CLONE *MRQ-26*
ISOTYPE *IgG1*
CONTROL *Placenta, Tonsil, Lymph Node*
LOCALIZATION *Cytoplasmic, Membranous*

CAT. #	PRESENTATION	VOL/QTY
BSB 6303	Tinto Prediluted	3.0 ml
BSB 6304	Tinto Prediluted	7.0 ml
BSB 6305	Tinto Prediluted	15.0 ml
BSB 6306	Concentrated	0.1 ml
BSB 6307	Concentrated	0.5 ml
BSB 6308	Concentrated	1.0 ml
BSB 6309	control slides	5

CDX2, RMab



IHC of CDX2 on an FFPE Colon Adenocarcinoma Tissue

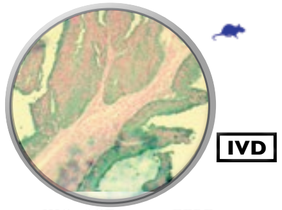
CDX2 is a caudal-type homeobox gene that encodes an intestine-specific transcription factor expressed early in intestinal development and that may be involved in the regulation of proliferation and differentiation of intestinal epithelial cells. It is expressed in the nuclei of epithelial cells throughout the intestine, from duodenum to rectum.

The CDX2 protein is expressed in Primary and Metastatic Colorectal Carcinomas and has also been demonstrated in the intestinal metaplasia of the stomach and intestinal-type gastric cancer. It is not expressed in the normal gastric mucosa. Loss of CDX2 protein expression has been correlated with loss of differentiation in colorectal cancers. Anti-CDX2 antibody has been useful in distinguishing the gastrointestinal origin of Metastatic Adenocarcinomas and carcinoids. Studies have shown that CDX2 is a superior marker compared to CK20. A high percentage of Mucinous Carcinomas of the Ovary also stain positively with this antibody, as well as Carcinomas from the upper gastrointestinal tract.

ANTIBODY TYPE *Rabbit Monoclonal*
CLONE *EP25**
ISOTYPE *IgG*
CONTROL *Adenocarcinoma of Colon, Normal Colon*
LOCALIZATION *Nuclear*

CAT. #	PRESENTATION	VOL/QTY
BSB 6057	Tinto Prediluted	3.0 ml
BSB 6058	Tinto Prediluted	7.0 ml
BSB 6059	Tinto Prediluted	15.0 ml
BSB 6060	Concentrated	0.1 ml
BSB 6061	Concentrated	0.5 ml
BSB 6062	Concentrated	1.0 ml
BSB 6063	control slides	5

CEA Mouse



IHC of CEA on an FFPE Colon Adenocarcinoma Tissue

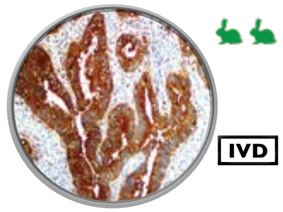
Carcinoembryonic antigen (CEA) is a glycoprotein involved in cell adhesion. It is normally produced during fetal development, but the production of CEA stops before birth. Therefore, it is not usually present in the blood of healthy adults, although levels are raised in heavy smokers. CEA is synthesized during development in the fetal gut, and is re-expressed in increased amounts in Intestinal Carcinomas and several other tumors.

CEA is employed essentially as a tool to assist in the distinction between Adenocarcinoma and Malignant Mesotheliomas of the epithelial type, along with other markers for mucosubstances such as Leu M1 and Ber-EP4. Another suggested use of CEA is the immunophenotyping of various Metastatic Adenocarcinomas as a means of identifying their origin.

ANTIBODY TYPE	*Mouse Monoclonal*
CLONE	*CEA31*
ISOTYPE	*IgG1/K*
CONTROL	*Colon*
LOCALIZATION	*Cytoplasmic*

CAT. #	PRESENTATION	VOL/QTY
BSB 5337	Tinto Prediluted	3.0 ml
BSB 5338	Tinto Prediluted	7.0 ml
BSB 5339	Tinto Prediluted	15.0 ml
BSB 5340	Concentrated	0.1 ml
BSB 5341	Concentrated	0.5 ml
BSB 5342	Concentrated	1.0 ml
BSB 5343	control slides	5

CEA Rabbit



IHC of CEA on an FFPE Colon Adenocarcinoma Tissue

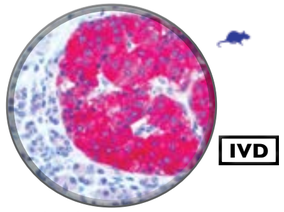
Carcinoembryonic antigen (CEA) is a glycoprotein involved in cell adhesion. It is normally produced during fetal development, but the production of CEA stops before birth. Therefore, it is not usually present in the blood of healthy adults, although levels are raised in heavy smokers. CEA is synthesized during development in the fetal gut, and is re-expressed in increased amounts in Intestinal Carcinomas and several other tumors.

CEA is employed essentially as a tool to assist in the distinction between Adenocarcinoma and Malignant Mesotheliomas of the epithelial type, along with other markers for mucosubstances such as Leu M1 and Ber-EP4. Another suggested use of CEA is the immunophenotyping of various Metastatic Adenocarcinomas as a means of identifying their origin.

ANTIBODY TYPE	*Rabbit Polyclonal*
CLONE	*N/A*
ISOTYPE	*IgG*
CONTROL	*Colon*
LOCALIZATION	*Cytoplasmic*

CAT. #	PRESENTATION	VOL/QTY
BSB 6534	Tinto Prediluted	3.0 ml
BSB 6535	Tinto Prediluted	7.0 ml
BSB 6536	Tinto Prediluted	15.0 ml
BSB 6537	Concentrated	0.1 ml
BSB 6538	Concentrated	0.5 ml
BSB 6539	Concentrated	1.0 ml
BSB 6540	control slides	5

Chromogranin A



IHC of Chromogranin A on an FFPE Pancreas Tissue

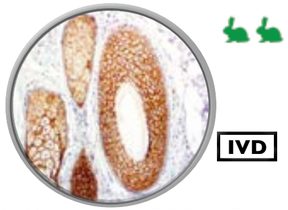
Chromogranin A is a member of the chromogranin/secretogranin family of neuroendocrine secretory proteins. Examples of cells producing chromogranin A are the adrenal medulla, enterochromaffin-like cells and beta cells of the pancreas. The function of chromogranin A is unknown but it is a precursor to 3 functional peptides: vasostatin, pancreastatin and parastatin. These peptides negatively modulate the neuroendocrine function of the releasing cell (autocrine) or nearby cells (paracrine).

Chromogranin A is an excellent marker for Carcinoid Tumors, Pheochromocytomas, Paragangliomas, and other Neuroendocrine Tumors. Coexpression of chromogranin A and neuron-specific enolase (NSE) is common in neuroendocrine neoplasms. It has been identified in a wide variety of endocrine tissues including the pituitary, pancreas, hypothalamus, thymus, thyroid, intestine and parathyroid. It is generally accepted that the co-expression of certain keratins and chromogranin means neuroendocrine lineage. The presence of strong chromogranin staining and absence of keratin staining should raise the possibility of paraganglioma. Most pituitary adenomas and prolactinomas readily express chromogranin.

ANTIBODY TYPE	*Mouse Monoclonal*
CLONE	*LK2H10*
ISOTYPE	*IgG1/K*
CONTROL	*Pancreas*
LOCALIZATION	*Cytoplasmic*

CAT. #	PRESENTATION	VOL/QTY
BSB 5344	Tinto Prediluted	3.0 ml
BSB 5345	Tinto Prediluted	7.0 ml
BSB 5346	Tinto Prediluted	15.0 ml
BSB 5347	Concentrated	0.1 ml
BSB 5348	Concentrated	0.5 ml
BSB 5349	Concentrated	1.0 ml
BSB 5350	control slides	5

Claudin-1



IHC of Claudin-1 on an FFPE Skin Tissue

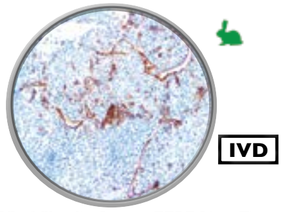
Claudin 1 is an integral membrane protein and a component of tight junction strands. Tight junctions represent one mode of cell-to-cell adhesion in epithelial or endothelial cell sheets, forming continuous seals around cells and serving as a physical barrier to prevent solutes and water from passing freely through the paracellular space. These junctions are composed of sets of continuous networking strands in the outwardly facing cytoplasmic leaflet, with complementary grooves in the inwardly facing extracytoplasmic leaflet.

Claudin-1 stains membraines of cells and is found in nearly all carcinomas, with stains much stronger in carcinoma cells than in normal tissue cells.

ANTIBODY TYPE	*Rabbit Polyclonal*
CLONE	*N/A*
ISOTYPE	*IgG*
CONTROL	*Skin, Colon Carcinoma, Small intestine*
LOCALIZATION	*Membranous, Cytoplasmic*

CAT. #	PRESENTATION	VOL/QTY
BSB 6562	Tinto Prediluted	3.0 ml
BSB 6563	Tinto Prediluted	7.0 ml
BSB 6564	Tinto Prediluted	15.0 ml
BSB 6565	Concentrated	0.1 ml
BSB 6566	Concentrated	0.5 ml
BSB 6567	Concentrated	1.0 ml
BSB 6568	control slides	5

Claudin-5, RMab



IHC of Claudin-5 on an FFPE Liver Tissue

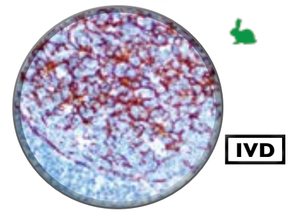
Claudin-5 is a member of the claudin family. Claudins are integral membrane proteins and components of tight junction strands. Tight junction (TJ) strands serve as a physical barrier to prevent solutes and water from passing freely through the paracellular space between epithelial or endothelial cell sheets. Claudin-5 is an endothelial cell-specific component of TJ strands. Mutations in Claudin-5 have been found in patients with velocardiofacial syndrome.

Claudin-5 labels endothelial cells and has been used as a marker for endothelial lesions. Claudin-5 is also found in bronchial and lung epithelial cells. In tumors, Claudin-5 expression has been found in lung adenocarcinoma and squamous carcinoma. In serous ovarian adenocarcinoma, increased Claudin-5 expression is associated with aggressive behavior.

ANTIBODY TYPE	*Rabbit Monoclonal*
CLONE	*EP224**
ISOTYPE	*IgG*
CONTROL	*Liver, Vascular Tissue*
LOCALIZATION	*Membranous, Cytoplasmic*

CAT. #	PRESENTATION	VOL/QTY
BSB 2398	Tinto Prediluted	3.0 ml
BSB 2399	Tinto Prediluted	7.0 ml
BSB 2400	Tinto Prediluted	15.0 ml
BSB 2401	Concentrated	0.1 ml
BSB 2402	Concentrated	0.5 ml
BSB 2403	Concentrated	1.0 ml
BSB 2404	control slides	5

Clusterin/Apolipoprotein J RMab



IHC of Clusterin/Apolipoprotein J on an FFPE Tonsil Tissue

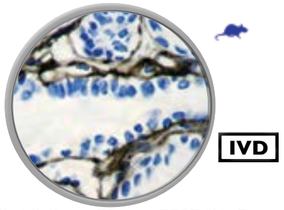
The Clusterin protein, also known as Apolipoprotein J, is a 75-80 kDa disulfide-linked heterodimeric protein containing about 30% of N-linked carbohydrate rich in sialic acid. It is a stress-induced cytoprotective chaperone protein regulated by HSF1 and functions similarly to a small heat-shock protein. Clusterin is distributed widely in human tissues and fluids, including normal epithelial cells, plasma, cerebrospinal fluid, breast milk, semen and urine. Clusterin has been implicated in a variety of activities including programmed cell death, regulation of complement mediated cell lysis, membrane recycling, cell-cell adhesion, and src induced transformation. As part of the attack complex of complement, it acts as a complement inhibitor.

Clusterin is expressed in a wide variety of hematopoietic and non-hematopoietic tumors. Overexpression of Clusterin is associated with poor prognosis in breast cancer and chemosensitivity in cervical cancer.

ANTIBODY TYPE	*Rabbit Monoclonal*
CLONE	*EP181**
ISOTYPE	*IgG*
CONTROL	*Tonsil, Lymph Node*
LOCALIZATION	*Cytoplasmic*

CAT. #	PRESENTATION	VOL/QTY
BSB 6569	Tinto Prediluted	3.0 ml
BSB 6570	Tinto Prediluted	7.0 ml
BSB 6571	Tinto Prediluted	15.0 ml
BSB 6572	Concentrated	0.1 ml
BSB 6573	Concentrated	0.5 ml
BSB 6574	Concentrated	1.0 ml
BSB 6575	control slides	5

Collagen Type IV



IHC of Collagen IV on an FFPE Skin Tissue

Collagen is the main protein of connective tissue in animals and the most abundant protein in mammals, making up about 25% of the total protein content. Collagen IV is a major constituent of the basement membranes, along with laminins and enactins. It is composed of the alpha 1 IV chain and alpha 2 IV chain in a 2:1 ratio. It can form insoluble fibers with high tensile strength.

Normal tissue stains with this antibody in a manner consistent with the sites of mesenchymal elements and epithelial basal laminae. Antibody to collagen IV is useful in detecting the loss of parts of basement membrane in carcinomas. Collagen IV can also be useful in the classification of soft tissue tumors; Schwanomas, Leiomyomas, and their well-differentiated malignant counterparts usually immunoreact to this antibody. The vascular nature of neoplasms, Hemangiopericytoma, Angiosarcoma and Epithelioid Hemangioendothelioma can be observed with this antibody.

ANTIBODY TYPE *Mouse Monoclonal*
CLONE *CIV22*
ISOTYPE *IgG1/K*
CONTROL *Muscle, Lung*
LOCALIZATION *Cytoplasmic*

CAT. #	PRESENTATION	VOL/QTY
BSB 5351	Tinto Prediluted	3.0 ml
BSB 5352	Tinto Prediluted	7.0 ml
BSB 5353	Tinto Prediluted	15.0 ml
BSB 5354	Concentrated	0.1 ml
BSB 5355	Concentrated	0.5 ml
BSB 5356	Concentrated	1.0 ml
BSB 5357	control slides	5

COX-2, RMab

IHC of COX-2 on an FFPE Colon Adenocarcinoma Tissue

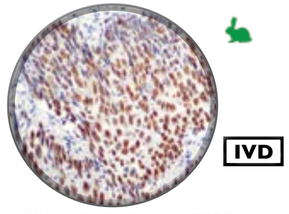
Cyclooxygenase (COX) is an enzyme that is responsible for formation of important biological mediators called prostanoids (including prostaglandins, prostacyclin and thromboxane). Pharmacological inhibition of COX can provide relief from the symptoms of inflammation and pain; this is the method of action of well-known drugs such as aspirin and ibuprofen. COX-2 inhibition by nonsteroidal anti-inflammatory agents has been shown to decrease angiogenesis and tumor growth, and promote apoptosis.

COX-2 overexpression has been associated with increased microvascular density, and VEGF protein expression in head and neck Squamous-cell Carcinomas and is a poor prognostic indicator in this entity as well. COX-2 overexpression has also been suggested as a poor prognostic indicator in Carcinomas of the colon, breast, pancreas, and Adenocarcinomas of the lung.

ANTIBODY TYPE *Rabbit Monoclonal*
CLONE *RBT-COX2*
ISOTYPE *IgG*
CONTROL *Adenocarcinoma of Colon*
LOCALIZATION *Cytoplasmic*

CAT. #	PRESENTATION	VOL/QTY
BSB 5358	Tinto Prediluted	3.0 ml
BSB 5359	Tinto Prediluted	7.0 ml
BSB 5360	Tinto Prediluted	15.0 ml
BSB 5361	Concentrated	0.1 ml
BSB 5362	Concentrated	0.5 ml
BSB 5363	Concentrated	1.0 ml
BSB 5364	control slides	5

Cyclin B1, RMab



IHC of Cyclin B1 on an FFPE Cervical Cancer Tissue

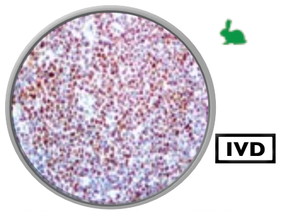
Cyclin B1 is a regulatory protein involved with mitosis. It complexes with p34(cdc2) to form the maturation-promoting factor (MPF). Cyclin B1 contributes to the switch-like all or none behavior of the cell in deciding to commit mitosis. Its activation is well regulated, and positive feedback loops ensure that once the cyclin B1-Cdk1 complex is activated it is not deactivated. Cyclin B1-Cdk1 is involved in the early events of mitosis, such as chromosome condensation, nuclear envelope breakdown, and spindle pole assembly. Before mitosis almost all cyclin B1 in the cell is located in the cytoplasm, but in late prophase it relocates to the nucleus. At the end of mitosis, cyclin B1 is targeted for degradation by the APC through its APC localization sequence, permitting the cell to exit mitosis.

Cyclin B1 has been shown to be overexpressed in various tumor types.

ANTIBODY TYPE *Rabbit Monoclonal*
CLONE *RBT-B1*
ISOTYPE *IgG*
CONTROL *HSIL Cervix*
LOCALIZATION *Nuclear*

CAT. #	PRESENTATION	VOL/QTY
BSB 6548	Tinto Prediluted	3.0 ml
BSB 6549	Tinto Prediluted	7.0 ml
BSB 6550	Tinto Prediluted	15.0 ml
BSB 6551	Concentrated	0.1 ml
BSB 6552	Concentrated	0.5 ml
BSB 6553	Concentrated	1.0 ml
BSB 6554	control slides	5

Cyclin D1, RMab



IHC of Cyclin D1 on an FFPE Mantle Cell Lymphoma Tissue

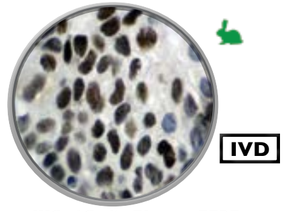
Cyclins are a family of proteins involved in the progression of cells through the cell cycle. Cyclins form a complex with their partner, cyclin-dependent kinase (Cdk), which activates the latter's protein kinase function. Cyclins are so named because they are produced or degraded as needed in order to drive the cell through the different stages of the cell cycle. When its concentrations in the cell are low, the cyclin detaches from the Cdk, inhibiting the enzyme's activity, probably by causing a protein chain to block the enzymatic site.

Cyclin D1 or PRAD-1 or bcl-1 is one of the key cell-cycle regulators, and functions in association with Cdk4 and/or Cdk6 by phosphorylating the Rb protein. It is a putative proto-oncogene overexpressed in a wide variety of human neoplasms including Mantle Cell Lymphomas (MCL).

ANTIBODY TYPE *Rabbit Monoclonal*
CLONE *RBT14*
ISOTYPE *IgG*
CONTROL *Breast Carcinoma, Mantle Cell Lymphoma*
LOCALIZATION *Nuclear*

CAT. #	PRESENTATION	VOL/QTY
BSB 5365	Tinto Prediluted	3.0 ml
BSB 5366	Tinto Prediluted	7.0 ml
BSB 5367	Tinto Prediluted	15.0 ml
BSB 5368	Concentrated	0.1 ml
BSB 5369	Concentrated	0.5 ml
BSB 5370	Concentrated	1.0 ml
BSB 5371	control slides	5

Cyclin E1, RMab



IHC of Cyclin E1 on an FFPE Breast Carcinoma Tissue

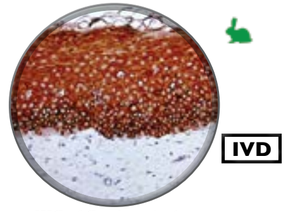
Cyclin E1 forms a complex with and functions as a regulatory subunit of CDK2, whose activity is required for cell cycle G1/S transition phase of the cell cycle that detremines cell division. The Cyclin E/CDK2 complex phosphorylates p27Kip1 (an inhibitor of Cyclin D), taggint it for degradation and thus promoting expression of Cyclin A, allowing progression to the S phase. This protein accumulates at the G1-S phase boundary and is degraded as cells progress through S phase. Apart from the function in cell cycle progression, cyclin E/CDK2 plays a role in the centrosome cycle by phosphorylating nucleophosmin (NPM). NPM is then released from binding to an unduplicated centrosome, thereby triggering duplication. Cyclin E/CDK2 has also been shown to regulate the apoptotic response to DNA damage via phosphorylation of FOXO1.

Overexpression of Cyclin E correlates with tumorigenesis. It is involved in various types of cancers, including breast, colon, bladder, skin, and lung cancer.

ANTIBODY TYPE *Rabbit Monoclonal*
CLONE *EP126**
ISOTYPE *IgG*
CONTROL *Placenta, Breast Cancer*
LOCALIZATION *Nuclear*

CAT. #	PRESENTATION	VOL/QTY
BSB 6555	Tinto Prediluted	3.0 ml
BSB 6556	Tinto Prediluted	7.0 ml
BSB 6557	Tinto Prediluted	15.0 ml
BSB 6558	Concentrated	0.1 ml
BSB 6559	Concentrated	0.5 ml
BSB 6560	Concentrated	1.0 ml
BSB 6561	control slides	5

Cytokeratin 4, RMab



IHC of Cytokeratin 4 on an FFPE Oral Mucosa Tissue

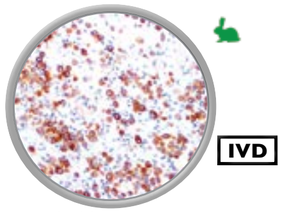
Cytokeratin 4 is a type II cytokeratin and is specifically found in differentiated layers of the mucosal and esophageal epithelia together with Cytokeratin 13. Mutations in the genes encoding this protein (KRT4) have been associated with White Sponge Nevus, characterized by oral, esophageal, and anal leukoplakia.

A decreased expression of CK4 is associated with head and neck squamous carcinoma. It is helpful in the differentiation of squamous cell carcinoma of esophagus origin from that of thyroid origin.

ANTIBODY TYPE *Rabbit Monoclonal*
CLONE *EP4**
ISOTYPE *IgG*
CONTROL *Esophagus, Squamous Carcinomas*
LOCALIZATION *Cytoplasmic*

CAT. #	PRESENTATION	VOL/QTY
BSB 6590	Tinto Prediluted	3.0 ml
BSB 6591	Tinto Prediluted	7.0 ml
BSB 6592	Tinto Prediluted	15.0 ml
BSB 6593	Concentrated	0.1 ml
BSB 6594	Concentrated	0.5 ml
BSB 6595	Concentrated	1.0 ml
BSB 6596	control slides	5

Cytokeratin 5, RMab



IHC of Cytokeratin 5 on an FFPE Mesothelioma Tissue

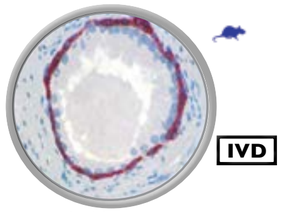
Cytokeratin 5 is a type II cytokeratin found in squamous cell epithelium, myoepithelial cells of the breast and the basal cells of the prostate. Both Cytokeratin 5 and its corresponding partner, Cytokeratin 14, are essential for formation of 8-nm filaments.

Cytokeratin 5 is expressed in most Epithelial Mesotheliomas but not by most Pulmonary Adenocarcinomas and can be used to differentiate between the two.

ANTIBODY TYPE	*Rabbit Monoclonal*
CLONE	*EP24**
ISOTYPE	*IgG*
CONTROL	*Prostate, Mesothelioma*
LOCALIZATION	*Cytoplasmic*

CAT. #	PRESENTATION	VOL/QTY
BSB 6597	Tinto Prediluted	3.0 ml
BSB 6598	Tinto Prediluted	7.0 ml
BSB 6599	Tinto Prediluted	15.0 ml
BSB 6600	Concentrated	0.1 ml
BSB 6601	Concentrated	0.5 ml
BSB 6602	Concentrated	1.0 ml
BSB 6603	control slides	5

Cytokeratin 5 & 6



IHC of CK 5 and 6 on an FFPE Prostate Tissue

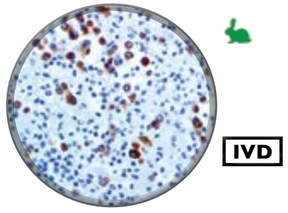
Cytokeratin 5 (58 kDa) is a high-molecular weight, basic type of cytokeratin expressed in basal, intermediate and superficial-cell layers of stratified epithelia as well as transitional epithelia, complex epithelia, mesothelial cells and Mesothelioma. Cytokeratin 6 (56 kD) is also a high-molecular weight, basic type cytokeratin expressed by proliferating squamous epithelium often paired with Cytokeratin 16.

CK 5 and 6 are positively seen in nearly 100% of Malignant Mesotheliomas and is rarely seen in Lung Adenocarcinomas. CK 5 and 6 can positively be seen in undifferentiated Large-cell Carcinoma as well as Squamous Carcinoma. Fewer than 10% of Carcinomas of the breast, colon, and prostate stain positively for this marker. CK 5 and 6 have also been used successfully as a myoepithelial cell marker in the prostate to determine malignancy.

ANTIBODY TYPE	*Mouse Monoclonal*
CLONE	*D5/16B4*
ISOTYPE	*IgG1*
CONTROL	*Mesothelioma, Prostate*
LOCALIZATION	*Cytoplasmic*

CAT. #	PRESENTATION	VOL/QTY
BSB 5400	Tinto Prediluted	3.0 ml
BSB 5401	Tinto Prediluted	7.0 ml
BSB 5402	Tinto Prediluted	15.0 ml
BSB 5403	Concentrated	0.1 ml
BSB 5404	Concentrated	0.5 ml
BSB 5405	Concentrated	1.0 ml
BSB 5406	control slides	5

Cytokeratin 5 & 6, RMab



IHC of CK 5 and 6 on an FFPE Mesothelioma Tissue

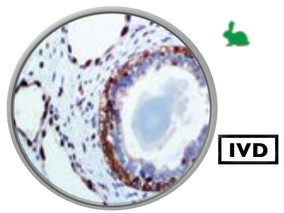
Cytokeratin 5 (58 kDa) is a high-molecular weight, basic type of cytokeratin expressed in basal, intermediate and superficial-cell layers of stratified epithelia as well as transitional epithelia, complex epithelia, mesothelial cells and Mesothelioma. Cytokeratin 6 (56 kD) is also a high-molecular weight, basic type cytokeratin expressed by proliferating squamous epithelium often paired with Cytokeratin 16.

CK 5 and 6 are positively seen in nearly 100% of Malignant Mesotheliomas and are rarely seen in Lung Adenocarcinomas. CK 5 and 6 can positively be seen in undifferentiated Large-cell Carcinoma as well as Squamous Carcinoma. Fewer than 10% of Carcinomas of the breast, colon, and prostate stain positively for this marker. CK 5 and 6 have also been used successfully as a myoepithelial cell marker in the prostate to determine malignancy.

ANTIBODY TYPE	*Rabbit Monoclonal*
CLONE	*EP24/EP67**
ISOTYPE	*IgG*
CONTROL	*Mesothelioma, Prostate*
LOCALIZATION	*Cytoplasmic*

CAT. #	PRESENTATION	VOL/QTY
BSB 6604	Tinto Prediluted	3.0 ml
BSB 6605	Tinto Prediluted	7.0 ml
BSB 6606	Tinto Prediluted	15.0 ml
BSB 6607	Concentrated	0.1 ml
BSB 6608	Concentrated	0.5 ml
BSB 6609	Concentrated	1.0 ml
BSB 6610	control slides	5

Cytokeratin 5 & ERG, RMab



IHC of Cytokeratin 5 & ERG on an FFPE Prostate Tissue

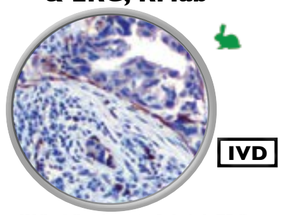
Cytokeratin 5 is a type II cytokeratin found in squamous cell epithelium, myoepithelial cells of the breast and the basal cells of the prostate. Transcriptional regulator ERG is a nuclear protein that binds purine-rich sequences. ERG is expressed at higher levels in early myelocytes than in mature lymphocytes, and thus ERG may act as a regulator of differentation of early hematopoietic cells. ERG can fuse with TMPRSS2 protein to form an oncogenic fusion gene commonly found in prostate cancer. Eighty percent of prostate tumors contain genomic fusions of TMPRSS2 and members of the ETS family of transcription factors.

Cytokeratin 5 is expressed in most epithelial mesotheliomas but not by most pulmonary adenocarcinomas and can be used to differentiate between the two. ERG antibody labels prostate cancer cells, endothelial cells, and lymphocyes.

ANTIBODY TYPE	*Rabbit Monoclonal*
CLONE	*EP24/EP111**
ISOTYPE	*IgG*
CONTROL	*Breast and Prostate Carcinomas*
LOCALIZATION	*Cytoplasmic, Nuclear*

CAT. #	PRESENTATION	VOL/QTY
BSB 6611	Tinto Prediluted	3.0 ml
BSB 6612	Tinto Prediluted	7.0 ml
BSB 6613	Tinto Prediluted	15.0 ml
BSB 6614	Concentrated	0.1 ml
BSB 6615	Concentrated	0.5 ml
BSB 6616	Concentrated	1.0 ml
BSB 6617	control slides	5

Cytokeratin 5 & 6 & ERG, RMab



IHC of Cytokeratin 5 & 6 & ERG on an FFPE Breast Tissue

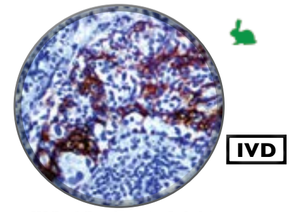
Cytokeratin 5 is a type II cytokeratin found in squamous cell epithelium, myoepithelial cells of the breast and the basal cells of the prostate. Cytokeratin 6 is a type II cytokeratin known for its strong induction in stratified epithelia that features an enhanced cell proliferation rate or abnormal differentiation during wound healing. ERG is expressed at higher levels in early myelocytes than in mature lymphocytes, and thus ERG may act as a regulator of differentation of early hematopoietic cells. ERG can fuse with TMPRSS2 protein to form an oncogenic fusion gene commonly found in prostate cancer.

Cytokeratin 5 is expressed in most epithelial mesotheliomas but not by most pulmonary adenocarcinomas and can be used to differentiate between the two. Together, CK 5 & 6 can be used to differeniate Mesothelioma (positive) from Lung Carcinoma (negative) or metastatic carcinoma (negative), and can also be used to distinguish between Ductal Hyperplasia of the breast (positive) from Solid Papillary DCIS (negative). ERG antibody labels prostate cancer cells, endothelial cells, and lymphocyes.

ANTIBODY TYPE	*Rabbit Monoclonal*
CLONE	*EP24/EP67/EP111**
ISOTYPE	*IgG*
CONTROL	*Breast and Prostate Carcinomas*
LOCALIZATION	*Cytoplasmic, Nuclear*

CAT. #	PRESENTATION	VOL/QTY
BSB 6618	Tinto Prediluted	3.0 ml
BSB 6619	Tinto Prediluted	7.0 ml
BSB 6620	Tinto Prediluted	15.0 ml
BSB 6621	Concentrated	0.1 ml
BSB 6622	Concentrated	0.5 ml
BSB 6623	Concentrated	1.0 ml
BSB 6624	control slides	5

Cytokeratin 5 & 14, RMab



IHC of Cytokeratin 5 & 14 on an FFPE Breast Tissue

Cytokeratin 5 is a type II cytokeratin found in squamous cell epithelium, myoepithelial cells of the breast and the basal cells of the prostate. Cytokeratin 14 is a Type I polypeptide found in basal cells of squamous epithelia, some glandular epithelia, myoepithelium, and mesothelial cells. Together, they form the cytoskeleton of epithelial cells.

Cytokeratin 5 is expressed in most Epithelial Mesotheliomas but not by most Pulmonary Adenocarcinomas and can be used to differentiate between the two. Cytokeratin 14 antibody labels the basal layer of stratifying squamous and non-squamous epithelia and recognizes Basal Cell Carcinomas and Squamous Cell Carcinomas. Anti-CK14 has been demonstrated to be useful in differentiating Squamous Cell Carcinomas from other epithelial tumors. This antibody has also been useful in separating oncocytic tumors of the kidney from renal mimics, as well as in determining metaplastic Carcinomas of the Breast. Anti-CK5, along with Anti-CK14, has found application in identifying the basaloid phenotype of breast carcinoma, a tumor with poor prognosis.

ANTIBODY TYPE	*Rabbit Monoclonal*
CLONE	*EP24/EP61**
ISOTYPE	*IgG*
CONTROL	*Breast and Prostate Carcinomas*
LOCALIZATION	*Cytoplasmic*

CAT. #	PRESENTATION	VOL/QTY
BSB 6625	Tinto Prediluted	3.0 ml
BSB 6626	Tinto Prediluted	7.0 ml
BSB 6627	Tinto Prediluted	15.0 ml
BSB 6628	Concentrated	0.1 ml
BSB 6629	Concentrated	0.5 ml
BSB 6630	Concentrated	1.0 ml
BSB 6631	control slides	5

Cytokeratin 5 & 14 & p63, RMab

IHC of Cytokeratin 5 & 14 & p63 on an FFPE Breast Tissue

Cytokeratin 5 is a type II cytokeratin found in squamous cell epithelium, myoepithelial cells of the breast and the basal cells of the prostate. Cytokeratin 14 is a Type I polypeptide found in basal cells of squamous epithelia, some glandular epithelia, myoepithelium, and mesothelial cells. Together, they form the cytoskeleton of epithelial cells. p63 and p73 proteins can induce p53-responsive genes and elicit programmed cell death. p73 and p63 are more important during development and differentiation. In particular, p63 appears to be primarily implicated in epithelial development.

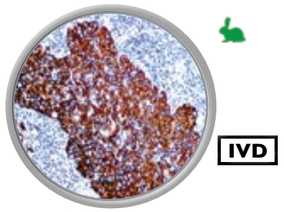
Anti-CK5, along with Anti-CK14, has found application in identifying the basaloid phenotype of breast carcinoma, a tumor with poor prognosis. p63 labels the nuclei of myoepithelial cells in the prostate gland as well as breast tissue, making it useful in differentiating benign vs. malignant prostate lesions and breast lesions.

ANTIBODY TYPE *Rabbit Monoclonal*
CLONE *EP24/EP61/EP174**
ISOTYPE *IgG*
CONTROL *Breast and Prostate Carcinomas*
LOCALIZATION *Cytoplasmic, Nuclear*

CAT. #	PRESENTATION	VOL/QTY
BSB 6632	Tinto Prediluted	3.0 ml
BSB 6633	Tinto Prediluted	7.0 ml
BSB 6634	Tinto Prediluted	15.0 ml
BSB 6635	Concentrated	0.1 ml
BSB 6636	Concentrated	0.5 ml
BSB 6637	Concentrated	1.0 ml
BSB 6638	control slides	5

Not for sale in the USA

Cytokeratin 6, RMab



IHC of Cytokeratin 6 on an FFPE Cervical Cancer Tissue

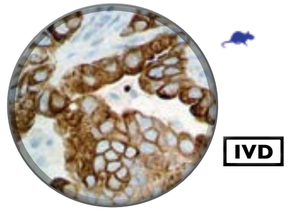
Cytokeratin 6 is a type II cytokeratin known for its strong induction in stratified epithelia that features an enhanced cell proliferation rate or abnormal differentiation during wound healing in several diseases (such as psoriasis, actinic keratosis) and in cancer. It can be found on stratified epithelia including oral mucosa, esophagus, basal layer of epidermis, the outer root sheath of hair follicles, and in glandular epithelia.

Together, CK 5 & 6 can be used to differentiate Mesothelioma (positive) from Lung Carcinoma (negative) or metastatic carcinoma (negative), and can also be used to distinguish between Ductal Hyperplasia of the breast (positive) from Solid Papillary DCIS (negative).

ANTIBODY TYPE *Rabbit Monoclonal*
CLONE *EP67**
ISOTYPE *IgG*
CONTROL *Skin, Squamous Cell Carcinoma*
LOCALIZATION *Cytoplasmic*

CAT. #	PRESENTATION	VOL/QTY
BSB 6639	Tinto Prediluted	3.0 ml
BSB 6640	Tinto Prediluted	7.0 ml
BSB 6641	Tinto Prediluted	15.0 ml
BSB 6642	Concentrated	0.1 ml
BSB 6643	Concentrated	0.5 ml
BSB 6644	Concentrated	1.0 ml
BSB 6645	control slides	5

Cytokeratin 7



IHC of CK 7 on anFFPE Lung Adenocarcinoma Tissue

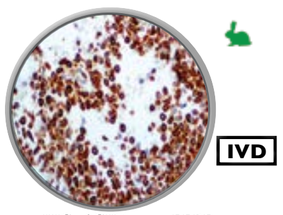
Cytokeratin 7 (CK7) reacts with proteins that are found in most ductal, glandular and transitional epithelium of the urinary tract and bile duct epithelial cells. CK 7 distinguishes between lung and breast epithelium that stain positive, and colon and prostate epithelial cells that are negative.

This antibody also reacts with many benign and malignant epithelial lesions (e.g., Adenocarcinomas of the ovary, breast and lung). Further, in frozen sections, the antibody has been shown to label the rete epithelium in the testis, epididymis epithelium, and the surface epithelium of the stomach and duodenum. Transitional-cell Carcinomas are positive and Prostate Cancers are negative. This antibody does not recognize intermediate filament proteins, nor does it recognize non-epithelial tissues such as blood vessels, connective tissue, etc.

ANTIBODY TYPE *Mouse Monoclonal*
CLONE *OV-TL12/30*
ISOTYPE *IgG1/K*
CONTROL *Salivary Gland, Lung Adenocarcinoma*
LOCALIZATION *Cytoplasmic*

CAT. #	PRESENTATION	VOL/QTY
BSB 5407	Tinto Prediluted	3.0 ml
BSB 5408	Tinto Prediluted	7.0 ml
BSB 5409	Tinto Prediluted	15.0 ml
BSB 5410	Concentrated	0.1 ml
BSB 5411	Concentrated	0.5 ml
BSB 5412	Concentrated	1.0 ml
BSB 5413	control slides	5

Cytokeratin 7, RMab



IHC of CK7 on an FFPE Lung Carcinoma Tissue

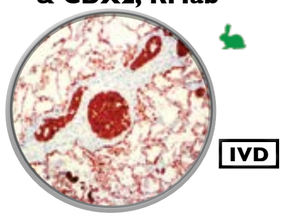
Cytokeratin 7 (CK7) reacts with proteins that are found in most ductal, glandular and transitional epithelium of the urinary tract and bile duct epithelial cells. CK7 distinguishes between lung and breast epithelium that stain positive, and colon and prostate epithelial cells that are negative.

This antibody also reacts with many benign and malignant epithelial lesions (e.g., Adenocarcinomas of the ovary, breast and lung). Further, in frozen sections, the antibody has been shown to label the rete epithelium in the testis, epididymis epithelium, and the surface epithelium of the stomach and duodenum. Transitional-cell Carcinomas are positive and Prostate Cancers are negative. This antibody does not recognize intermediate filament proteins, nor does it recognize non-epithelial tissues such as blood vessels, connective tissue, etc.

ANTIBODY TYPE *Rabbit Monoclonal*
CLONE *EP16**
ISOTYPE *IgG*
CONTROL *Salivary Gland, Lung Adenocarcinoma*
LOCALIZATION *Cytoplasmic*

CAT. #	PRESENTATION	VOL/QTY
BSB 6646	Tinto Prediluted	3.0 ml
BSB 6647	Tinto Prediluted	7.0 ml
BSB 6648	Tinto Prediluted	15.0 ml
BSB 6649	Concentrated	0.1 ml
BSB 6650	Concentrated	0.5 ml
BSB 6651	Concentrated	1.0 ml
BSB 6652	control slides	5

Cytokeratin 7 & CDX2, RMab



IHC of Cytokeratin 7 & CDX2 on an FFPE Colon Carcinoma Metastasis to Lung

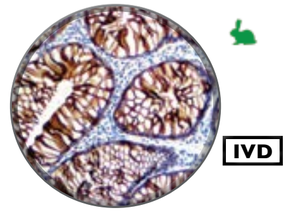
Cytokeratin 7 (CK7) reacts with proteins that are found in most ductal, glandular and transitional epithelium of the urinary tract and bile duct epithelial cells. CK7 distinguishes between lung and breast epithelium that stain positive, and colon and prostate epithelial cells that are negative. CDX2 is a caudal-type homeobox gene that encodes an intestine-specific transcription factor expressed early in intestinal development and that may be involved in the regulation of proliferation and differentiation of intestinal epithelial cells.

The Cytokeratin 7 antibody has been shown to label the rete epithelium in the testis, epididymis epithelium, and the surface epithelium of the stomach and duodenum. Transitional-cell Carcinomas are positive and Prostate Cancers are negative. Anti-CDX2 antibody has been useful in distinguishing the gastrointestinal origin of Metastatic Adenocarcinomas and Carcinoids. A high percentage of Mucinous Carcinomas of the Ovary also stain positively with this antibody, as well as Carcinomas from the upper gastrointestinal tract.

ANTIBODY TYPE *Rabbit Monoclonal*
CLONE *EP16/EP25**
ISOTYPE *IgG*
CONTROL *Colon, Breast, Lung Ca.*
LOCALIZATION *Cytoplasmic, Nuclear*

CAT. #	PRESENTATION	VOL/QTY
BSB 6653	Tinto Prediluted	3.0 ml
BSB 6654	Tinto Prediluted	7.0 ml
BSB 6655	Tinto Prediluted	15.0 ml
BSB 6656	Concentrated	0.1 ml
BSB 6657	Concentrated	0.5 ml
BSB 6658	Concentrated	1.0 ml
BSB 6659	control slides	5

Cytokeratin 8, RMab



IHC of Cytokeratin 8 on an FFPE Colon Tissue

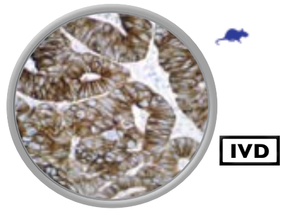
Cytokeratin 8, also known as type II cytoskeletal 8, is a protein that is often paired with Cytokeratin 18. They are perhaps the most commonly found products of the intermediate filament gene family, and are expressed in single-layer epithelial tissues of the body. Cytokeratin 8 is an intermediate filament protein produced early in embryogenesis.

Anti-Cytokeratin 8 can be used to detect Adenocarcinomas with simple epithelium origin. It can be used to distinguish between Duct (peripheral staining) from Lobular (perinuclear staining) Breast Carcinoma.

ANTIBODY TYPE *Rabbit Monoclonal*
CLONE *EP17**
ISOTYPE *IgG*
CONTROL *Colon, Colon Cancer*
LOCALIZATION *Cytoplasmic*

CAT. #	PRESENTATION	VOL/QTY
BSB 6660	Tinto Prediluted	3.0 ml
BSB 6661	Tinto Prediluted	7.0 ml
BSB 6662	Tinto Prediluted	15.0 ml
BSB 6663	Concentrated	0.1 ml
BSB 6664	Concentrated	0.5 ml
BSB 6665	Concentrated	1.0 ml
BSB 6666	control slides	5

Cytokeratin 8 & 18



IHC of CK 8 and 18 on an FFPE Colon Carcinoma Tissue

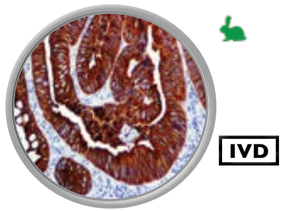
Cytokeratin 8 belongs to the Type II (basic) subfamily of high molecular-weight keratins and exists in combination with Cytokeratin 18 (Type I [acidic] subfamily of low molecular weight keratins). They are perhaps the most commonly found products of the intermediate filament gene family, and are expressed in single-layer epithelial tissues of the body.

Cytokeratins 8 and 18 can be found in most simple epithelium (e.g., thyroid, female breast, gastrointestinal tract, and respiratory tract). Adenocarcinomas and most Non-keratinizing Squamous Carcinomas will stain, but Keratinizing Squamous Carcinomas will not. This antibody is used when attempting to demonstrate the presence of Paget cells; there is very little keratin 18 in the normal epidermis so only Paget cells will stain. This approach facilitates the interpretation using immunostains and is more sensitive than mucin histochemistry.

ANTIBODY TYPE	*Mouse Monoclonal*
CLONE	*B22.1 & B23.1*
ISOTYPE	*IgG1*
CONTROL	*Prostate, Pancreas, Salivary Gland*
LOCALIZATION	*Cytoplasmic*

CAT. #	PRESENTATION	VOL/QTY
BSB 5414	Tinto Prediluted	3.0 ml
BSB 5415	Tinto Prediluted	7.0 ml
BSB 5416	Tinto Prediluted	15.0 ml
BSB 5417	Concentrated	0.1 ml
BSB 5418	Concentrated	0.5 ml
BSB 5419	Concentrated	1.0 ml
BSB 5420	control slides	5

Cytokeratin 8 & 18, RMab



IHC of CK 8 and 18 on an FFPE Colon Carcinoma Tissue

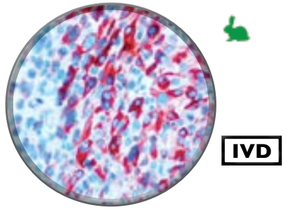
Cytokeratin 8 belongs to the Type II (basic) subfamily of high molecular-weight keratins and exists in combination with Cytokeratin 18 (Type I [acidic] subfamily of low molecular weight keratins). They are perhaps the most commonly found products of the intermediate filament gene family, and are expressed in single-layer epithelial tissues of the body.

Cytokeratins 8 and 18 can be found in most simple epithelium (e.g., thyroid, female breast, gastrointestinal tract, and respiratory tract). Adenocarcinomas and most Non-keratinizing Squamous Carcinomas will stain, but Keratinizing Squamous Carcinomas will not. This antibody is used when attempting to demonstrate the presence of Paget cells; there is very little keratin 18 in the normal epidermis so only Paget cells will stain. This approach facilitates the interpretation using immunostains and is more sensitive than mucin histochemistry.

ANTIBODY TYPE	*Rabbit Monoclonal*
CLONE	*EP17 & EP30**
ISOTYPE	*IgG*
CONTROL	*Prostate, Pancreas, Salivary Gland, Colon*
LOCALIZATION	*Cytoplasmic*

CAT. #	PRESENTATION	VOL/QTY
BSB 2049	Tinto Prediluted	3.0 ml
BSB 2050	Tinto Prediluted	7.0 ml
BSB 2051	Tinto Prediluted	15.0 ml
BSB 2052	Concentrated	0.1 ml
BSB 2053	Concentrated	0.5 ml
BSB 2054	Concentrated	1.0 ml
BSB 2055	control slides	5

Cytokeratin 10, RMab



IHC of Cytokeratin 10 on an FFPE Cervical Carcinoma Tissue

Cytokeratin 10 is a type I cytokeratin, which belongs to the superfamily of intermediate filament (IF) proteins. It is expressed in the subprabasal cell layers of certain stratified epithelia, notably epidermis, and is typically associated with Cytokeratin 1.

Anti-Cytokeratin 10 is helpful in identification of more differentiated squamous cell carcinomas.

ANTIBODY TYPE	*Rabbit Monoclonal*
CLONE	*EP97**
ISOTYPE	*IgG*
CONTROL	*Squamous Cell Carcinoma*
LOCALIZATION	*Cytoplasmic*

CAT. #	PRESENTATION	VOL/QTY
BSB 6667	Tinto Prediluted	3.0 ml
BSB 6668	Tinto Prediluted	7.0 ml
BSB 6669	Tinto Prediluted	15.0 ml
BSB 6670	Concentrated	0.1 ml
BSB 6671	Concentrated	0.5 ml
BSB 6672	Concentrated	1.0 ml
BSB 6673	control slides	5

Cytokeratin 13, RMab

IHC of Cytokeratin 13 on an FFPE Cervix Tissue

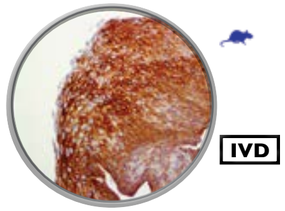
Cytokeratin 13 is a type I cytokeratin usually paired with Cytokeratin 4 and is found in the suprabasal layers of non-cornified stratified epithelia such as tongue mucosa, esophagus, anal canal epithelium, tracheal epithelium, uterine cervix, and urothelium.

Anti-Cytokeratin 13 has been used as a marker for Non-Keratinzed Squamous Epithelium and can also be expressed in Squamous Metaplasia, but is down regulated in Squamous Dysplasia and Squamous Carcinoma.

ANTIBODY TYPE	*Rabbit Monoclonal*
CLONE	*EP69**
ISOTYPE	*IgG*
CONTROL	*Uterine Cervix, Urothelium*
LOCALIZATION	*Cytoplasmic*

CAT. #	PRESENTATION	VOL/QTY
BSB 6674	Tinto Prediluted	3.0 ml
BSB 6675	Tinto Prediluted	7.0 ml
BSB 6676	Tinto Prediluted	15.0 ml
BSB 6677	Concentrated	0.1 ml
BSB 6678	Concentrated	0.5 ml
BSB 6679	Concentrated	1.0 ml
BSB 6680	control slides	5

Cytokeratin 14



IHC of CK 14 on an FFPE Cervix Tissue

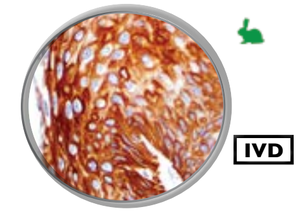
Cytokeratin 14 is a Type I polypeptide found in basal cells of squamous epithelia, some glandular epithelia, myoepithelium, and mesothelial cells. It is usually found as a heterotetramer with two cytokeratin 5 molecules, and a Type II keratin. Together, they form the cytoskeleton of epithelial cells. Mutations in the genes for these cytokeratins are associated with Epidermolysis Bullosa Simplex.

Cytokeratin 14 has been studied as a prognostic marker in Breast Cancer. This antibody labels the basal layer of stratifying squamous and non-squamous epithelia. The staining pattern is cytoplasmic. It recognizes Basal Cell Carcinomas and Squamous Cell Carcinomas. Anti-CK 14 has been demonstrated to be useful in differentiating Squamous Cell Carcinomas from other epithelial tumors. This antibody has also been useful in separating oncocytic tumors of the kidney from renal mimics, as well as in determining metaplastic Carcinomas of the Breast.

ANTIBODY TYPE	*Mouse Monoclonal*
CLONE	*LL002*
ISOTYPE	*IgG3*
CONTROL	*Squamous Mucosa, Squamous Carcinoma*
LOCALIZATION	*Cytoplasmic*

CAT. #	PRESENTATION	VOL/QTY
BSB 6219	Tinto Prediluted	3.0 ml
BSB 6220	Tinto Prediluted	7.0 ml
BSB 6221	Tinto Prediluted	15.0 ml
BSB 6222	Concentrated	0.1 ml
BSB 6223	Concentrated	0.5 ml
BSB 6224	Concentrated	1.0 ml
BSB 6225	control slides	5

Cytokeratin 14, RMab



IHC of CK 14 on an FFPE Cervix Tissue

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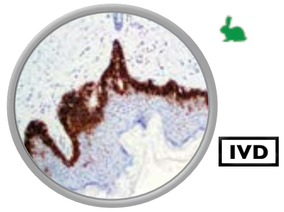
Cytokeratin 14 has been studied as a prognostic marker in Breast Cancer. This antibody labels the basal layer of stratifying squamous and non-squamous epithelia. The staining pattern is cytoplasmic and recognizes Basal Cell Carcinomas and Squamous Cell Carcinomas. Anti-CK14 has been demonstrated to be useful in differentiating Squamous Cell Carcinomas from other epithelial tumors. This antibody has also been useful in separating oncocytic tumors of the kidney from renal mimics, as well as in determining metaplastic Carcinomas of the Breast.

ANTIBODY TYPE	*Rabbit Monoclonal*
CLONE	*EP61**
ISOTYPE	*IgG*
CONTROL	*Squamous Mucosa, Squamous Cell Carcinoma*
LOCALIZATION	*Cytoplasmic*

CAT. #	PRESENTATION	VOL/QTY
BSB 6681	Tinto Prediluted	3.0 ml
BSB 6682	Tinto Prediluted	7.0 ml
BSB 6683	Tinto Prediluted	15.0 ml
BSB 6684	Concentrated	0.1 ml
BSB 6685	Concentrated	0.5 ml
BSB 6686	Concentrated	1.0 ml
BSB 6687	control slides	5

Cytokeratin 15, RMab



IHC of Cytokeratin 15 on an FFPE Skin Tissue

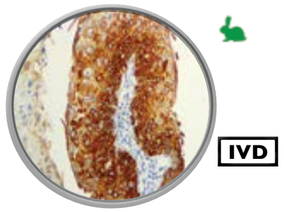
Cytokeratin 15 (CK15) is involved in the development of stratified epithelia from one-layered polar epithelia and continues to be expressed in several adult epithelial tissues. It labels the basal keratinocytes of stratified tissues, including the fetal epidermis and fetal nail. Although CK15 in normal hair follicles was virtually absent from hair bulbs, it was expressed by a subset of keratinocytes in the outer root sheath. In human conjunctival epithelium, strong expression of CK15 is observed in basal cells, whereas Cytokeratin 19 is expressed in both basal and suprabasal layers.

CK15 may be used to differentiate primary from metastatic skin cancer. It may be a useful stem cell marker for hair follicle and breast epithelium.

ANTIBODY TYPE	*Rabbit Monoclonal*
CLONE	*EP14**
ISOTYPE	*IgG*
CONTROL	*Skin, Cervical Carcinoma*
LOCALIZATION	*Cytoplasmic*

CAT. #	PRESENTATION	VOL/QTY
BSB 6688	Tinto Prediluted	3.0 ml
BSB 6689	Tinto Prediluted	7.0 ml
BSB 6690	Tinto Prediluted	15.0 ml
BSB 6691	Concentrated	0.1 ml
BSB 6692	Concentrated	0.5 ml
BSB 6693	Concentrated	1.0 ml
BSB 6694	control slides	5

Cytokeratin 17, RMab



IHC of CK 17 on an FFPE Cervical Cancer Tissue

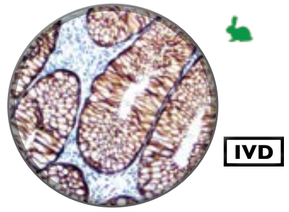
Cytokeratin 17 is a Type I cytokeratin with a MW of 46 kD found sometimes in association with Cytokeratin 7. It is found in nail beds, hair follicles, sebaceous glands, and other epidermal appendages. Mutations in the gene encoding this protein lead to Jackson-Lawler type Pachyonychia Congenita and Steatocystoma Multiplex.

Cytokeratin 17 antibody has been used to distinguish immature Cervical Squamous Metaplasia from high grade Cervical Intraepithelial Neoplasia (CIN III). Anti-CK 17 also labels myoepithelial cells in the benign breast tissue. CK 17 labeling of Breast Carcinoma cells (so-called basal phenotype) has been associated with a poor prognosis.

ANTIBODY TYPE	*Rabbit Monoclonal*
CLONE	*EP98**
ISOTYPE	*IgG*
CONTROL	*Skin, Cervical Cancer*
LOCALIZATION	*Cytoplasmic*

CAT. #	PRESENTATION	VOL/QTY
BSB 6184	Tinto Prediluted	3.0 ml
BSB 6185	Tinto Prediluted	7.0 ml
BSB 6186	Tinto Prediluted	15.0 ml
BSB 6187	Concentrated	0.1 ml
BSB 6188	Concentrated	0.5 ml
BSB 6189	Concentrated	1.0 ml
BSB 6190	control slides	5

Cytokeratin 18, RMab



IHC of Cytokeratin 18 on an FFPE Colon Tissue

Cytokeratin 18 is a type I cytokeratin and is typically partnered with Cytokeratin 8. They are expressed in simple and glandular and transitional epithelial cells but not in stratified epithelial cells.

Cytokeratin 18 antibody stains positively in Adenocarcinomas originating from simple and glandular epithelium, and also in poorly differentiated tumor cells of Squamous Carcinoma.

ANTIBODY TYPE	*Rabbit Monoclonal*
CLONE	*EP30**
ISOTYPE	*IgG*
CONTROL	*Breast, Breast Cancer, Colon Cancer*
LOCALIZATION	*Cytoplasmic*

CAT. #	PRESENTATION	VOL/QTY
BSB 6695	Tinto Prediluted	3.0 ml
BSB 6696	Tinto Prediluted	7.0 ml
BSB 6697	Tinto Prediluted	15.0 ml
BSB 6698	Concentrated	0.1 ml
BSB 6699	Concentrated	0.5 ml
BSB 6700	Concentrated	1.0 ml
BSB 6701	control slides	5

Cytokeratin 19, RMab

IHC of CK 19 on anFFPE Colon Adenocarcinoma Tissue

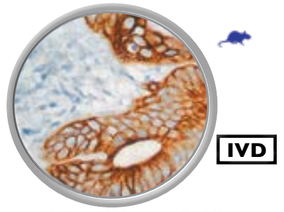
Cytokeratin 19 is a Type I cytokeratin. Unlike its related family members, this smallest-known acidic cytokeratin is not paired with a basic cytokeratin in epithelial cells. It is specifically found in the periderm, the transiently-superficial layer that envelopes the developing epidermis.

Anti-Cytokeratin 19 reacts with a wide variety of epithelium and epithelial malignancies including Adenocarcinomas of the colon, stomach, pancreas, biliary tract, liver and breast. Perhaps the most useful application is the identification of Thyroid Carcinoma of the papillary type, although Follicular Carcinoma is also labeled by this antibody approximately 50-60% of the time. Cytokeratin 19 is not expressed in hepatocytes; therefore, this antibody is useful in the identification of liver metastasis. The degree of Cytokeratin 19 positivity in Breast Cancer distinguishes malignant from benign tumors. Cytokeratin 19 is often coexpressed with Cytokeratin 7.

ANTIBODY TYPE	*Rabbit Monoclonal*
CLONE	*EP72**
ISOTYPE	*IgG*
CONTROL	*Colon Carcinoma, Colon Mucosa, Bladder, Thyroid Carcinoma*
LOCALIZATION	*Cytoplasmic*

CAT. #	PRESENTATION	VOL/QTY
BSB 5379	Tinto Prediluted	3.0 ml
BSB 5380	Tinto Prediluted	7.0 ml
BSB 5381	Tinto Prediluted	15.0 ml
BSB 5382	Concentrated	0.1 ml
BSB 5383	Concentrated	0.5 ml
BSB 5384	Concentrated	1.0 ml
BSB 5385	control slides	5

Cytokeratin 20



IHC of CK 20 on anFFPE Colon Adenocarcinoma Tissue

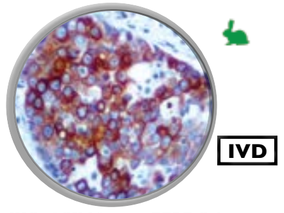
Cytokeratin 20 (CK 20) is a 46 kDa intermediate filament protein whose expression is restricted primarily to gastric and intestinal epithelium, urothelium, and Merkel cells. Cytokeratin 20 is a Type I cytokeratin. It is a major cellular protein of mature enterocytes and goblet cells found in the gastric and intestinal mucosa.

CK 20 is expressed in Adenocarcinomas of the colon, stomach, pancreas and biliary system. It is also expressed in Mucinous Ovarian Tumors, Transitional-cell Carcinomas of the urinary tract, and Merkel-cell Carcinomas. Cytokeratin 20 is useful in the differentiation of specific types of simple epithelial cells of the urinary tract and normal and malignantly-transformed epithelia. This antibody is essentially non-reactive in Squamous Cell Carcinomas and Adenocarcinomas of the Breast, Lung, and Endometrium, Non-mucinous Tumors of the Ovary, and Small-cell Carcinomas. This antibody is often used in conjunction with CK 7 and other antibodies to distinguish Colon Carcinomas (CK20+) from Ovarian, Pulmonary, and Breast Carcinomas.

ANTIBODY TYPE	*Mouse Monoclonal*
CLONE	*Ks20.8*
ISOTYPE	*IgG2a/K*
CONTROL	*Colon Carcinoma, Colon Mucosa, Bladder*
LOCALIZATION	*Cytoplasmic*

CAT. #	PRESENTATION	VOL/QTY
BSB 5386	Tinto Prediluted	3.0 ml
BSB 5387	Tinto Prediluted	7.0 ml
BSB 5388	Tinto Prediluted	15.0 ml
BSB 5389	Concentrated	0.1 ml
BSB 5390	Concentrated	0.5 ml
BSB 5391	Concentrated	1.0 ml
BSB 5392	control slides	5

Cytokeratin 20, RMab



IHC of CK 20 on an FFPE Colon Cancer Metastasis to Lung Tissue

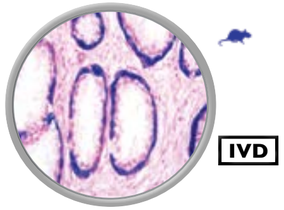
Cytokeratin 20 (CK20) is a 46 kDa intermediate filament protein whose expression is restricted primarily to gastric and intestinal epithelium, urothelium, and Merkel cells. Cytokeratin 20 is a Type I cytokeratin. It is a major cellular protein of mature enterocytes and goblet cells found in the gastric and intestinal mucosa.

CK 20 is expressed in Adenocarcinomas of the colon, stomach, pancreas and biliary system. It is also expressed in Mucinous Ovarian Tumors, Transitional-cell Carcinomas of the urinary tract, and Merkel-cell Carcinomas. Cytokeratin 20 is useful in the differentiation of specific types of simple epithelial cells of the urinary tract and normal and malignantly-transformed epithelia. This antibody is essentially non-reactive in Squamous Cell Carcinomas and Adenocarcinomas of the Breast, Lung, and Endometrium, Non-mucinous Tumors of the Ovary, and Small-cell Carcinomas. This antibody is often used in conjunction with CK7 and other antibodies to distinguish Colon Carcinomas (CK20+) from Ovarian, Pulmonary, and Breast Carcinomas.

ANTIBODY TYPE	*Rabbit Monoclonal*
CLONE	*EP23**
ISOTYPE	*IgG*
CONTROL	*Colon Carcinoma, Colon Mucosa, Bladder*
LOCALIZATION	*Cytoplasmic*

CAT. #	PRESENTATION	VOL/QTY
BSB 6702	Tinto Prediluted	3.0 ml
BSB 6703	Tinto Prediluted	7.0 ml
BSB 6704	Tinto Prediluted	15.0 ml
BSB 6705	Concentrated	0.1 ml
BSB 6706	Concentrated	0.5 ml
BSB 6707	Concentrated	1.0 ml
BSB 6708	control slides	5

Cytokeratin HMW/34βE12



IHC of CK HMW/34βE12 on an FFPE Prostatic Adenocarcinoma Tissue

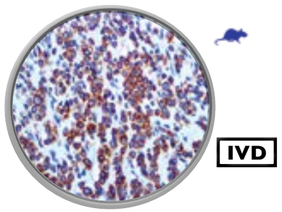
Cytokeratin 34βE12 is a High Molecular Weight cytokeratin that reacts with all squamous and ductal epithelium and stains carcinomas. This antibody recognizes cytokeratins 1, 5, 10, and 14 that are found in complex epithelia. Cytokeratin 34βE12 shows no reactivity with hepatocytes, pancreatic acinar cells, proximal renal tubules or endometrial glands; there has been no reactivity with cells derived from simple epithelia. Nerve cells, glial cells and mesenchymal tissue such as blood vessels containing only non-keratin types of intermediate filaments are not labelled; however, reactivity with smooth-muscle cells has been occasionally observed.

Mesenchymal Tumors, Lymphomas, Melanomas, Neural Tumors and Neuroendocrine Tumors are unreactive with this antibody. Cytokeratin 34βE12 has been shown to be useful in distinguishing Prostatic Adenocarcinoma from Hyperplasia of the Prostate.

ANTIBODY TYPE *Mouse Monoclonal*
CLONE *34βE12*
ISOTYPE *IgG1/K*
CONTROL *Prostate*
LOCALIZATION *Cytoplasmic*

CAT. #	PRESENTATION	VOL/QTY
BSB 5393	Tinto Prediluted	3.0 ml
BSB 5394	Tinto Prediluted	7.0 ml
BSB 5395	Tinto Prediluted	15.0 ml
BSB 5396	Concentrated	0.1 ml
BSB 5397	Concentrated	0.5 ml
BSB 5398	Concentrated	1.0 ml
BSB 5399	control slides	5

Cytokeratin LMW CAM5.2



IHC of Cytokeratin LMW CAM5.2 on an FFPE Breast Carcinoma Tissue

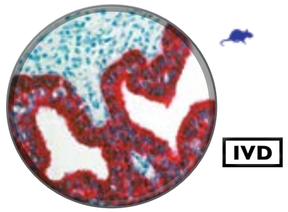
Anti-Cytokeratin (CAM5.2) antibody has a primary reactivity with human keratin proteins that correspond to Moll's peptides #7 and #8, Mr 48 and 52 kDa, respectively. Cytokeratin 7 and 8 are present in secretory epithelia of normal human tissue but not on stratified squamous epithelium.

Anti-Cytokeratin (CAM5.2) stains most epithelial-derived tissue, including liver, renal tubular epithelium, and hepatocellular and renal cell carcinomas. Anti-Cytokeratin (CAM 5.2) may not react with some squamous cell carcinomas.

ANTIBODY TYPE *Mouse Monoclonal*
CLONE *CAM5.2*
ISOTYPE *IgG2a/K*
CONTROL *Colon, Breast, Ovarian Carcinoma*
LOCALIZATION *Cytoplasmic*

CAT. #	PRESENTATION	VOL/QTY
BSB 2056	Tinto Prediluted	3.0 ml
BSB 2057	Tinto Prediluted	7.0 ml
BSB 2058	Tinto Prediluted	15.0 ml
BSB 2059	Concentrated	0.1 ml
BSB 2060	Concentrated	0.5 ml
BSB 2061	Concentrated	1.0 ml
BSB 2062	control slides	5

Cytokeratin 35βH11



IHC of CK 8/35βH11 on an FFPE Prostatic Adenocarcinoma Tissue

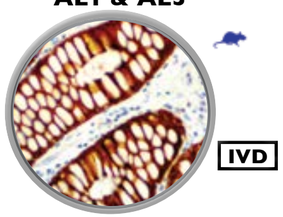
Cytokeratin 8 belongs to the Type II (basic) subfamily of high molecular-weight keratins and exists in combination with cytokeratin 18. Cytokeratin 8 is primarily found in the non-squamous epithelia and is present in the majority of Adenocarcinomas and Ductal Carcinomas. It is absent in Squamous Cell Carcinomas. Hepatocellular Carcinomas are defined by the use of antibodies that recognize only cytokeratin polypeptides 8 and 18.

Anti-Cytokeratin 8/35βH11 stains most Non-Squamous Epithelial tumors; Squamous tumors are negative for this antibody as a rule. This antibody stains Adenocarcinomas of the breast, ovary, gastrointestinal tract, thyroid, pancreas, bile duct, and salivary glands. This antibody does not react with skeletal muscle or nerve cells.

ANTIBODY TYPE *Mouse Monoclonal*
CLONE *35βH11*
ISOTYPE *IgM*
CONTROL *Prostate, Colon*
LOCALIZATION *Cytoplasmic*

CAT. #	PRESENTATION	VOL/QTY
BSB 5421	Tinto Prediluted	3.0 ml
BSB 5422	Tinto Prediluted	7.0 ml
BSB 5423	Tinto Prediluted	15.0 ml
BSB 5424	Concentrated	0.1 ml
BSB 5425	Concentrated	0.5 ml
BSB 5426	Concentrated	1.0 ml
BSB 5427	control slides	5

Cytokeratin Cocktail AE1 & AE3



IHC of CK AE1 & AE3 on an FFPE Colon Tissue

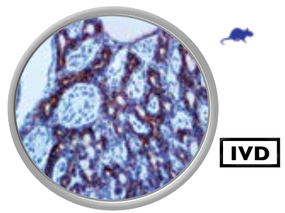
Cytokeratins are intermediate-filament keratins found in the intracytoplasmic cytoskeleton of epithelial tissue. There are two types of cytokeratins: the low-weight, acidic Type I cytokeratins and the high-weight, basic or neutral Type II cytokeratins. Cytokeratins are usually found in pairs comprising a Type I cytokeratin and a Type II cytokeratin. Expression of these cytokeratins is frequently organ or tissue-specific.

Cytokeratin cocktail AE1/AE3 is well suited to distinguish Epithelial Carcinoma from Non-epithelial malignancies and is used to aid Epithelial Tumor classification. This antibody has been used to characterize the source of various neoplasms and to study the distribution of keratin-containing cells in epithelia during normal development and during the development of epithelial neoplasms. This antibody stains cytokeratins present in normal and abnormal human tissues. This antibody has shown high sensitivity and specificity in recognizing epithelial cells of neoplastic origin.

ANTIBODY TYPE *Mouse Monoclonal*
CLONE *AE1 & AE3*
ISOTYPE *IgG1*
CONTROL *Prostate, Skin, Colon, Stomach, Salivary Gland*
LOCALIZATION *Cytoplasmic*

CAT. #	PRESENTATION	VOL/QTY
BSB 5428	Tinto Prediluted	3.0 ml
BSB 5429	Tinto Prediluted	7.0 ml
BSB 5430	Tinto Prediluted	15.0 ml
BSB 5431	Concentrated	0.1 ml
BSB 5432	Concentrated	0.5 ml
BSB 5433	Concentrated	1.0 ml
BSB 5434	control slides	5

Cytokeratin LMW/AE1



IHC of Cytokeratin LMW/AE1 on an FFPE Salivary Gland Tissue

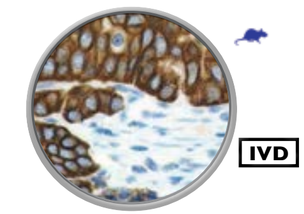
Cytokeratins are intermediate-filament keratins found in the intracytoplasmic cytoskeleton of epithelial tissue. There are two types of cytokeratins: the low-weight, acidic Type I cytokeratins and the high-weight, basic or neutral Type II cytokeratins. Cytokeratins are usually found in pairs comprising a Type I cytokeratin and a Type II cytokeratin. Expression of these cytokeratins is frequently organ or tissue-specific.

Cytokeratin Low Molecular Weight AE1 can recognize most acidic keratins, making it a broadly reactive antibody that stains most epithelia and their neoplasms. Members of the acidic and basic subfamilies are found in pairs. Each epithelium contains at least one acidic and one basic keratin so this antibody can show the distribution of keratin-containing cells in epithelia. Cytokeratin AE1 is particularly suited to distinguish poorly-differentiated Carcinomas from non-epithelial Neoplasms. This marker stains both normal and neoplastic cells of epithelial origin.

ANTIBODY TYPE *Mouse Monoclonal*
CLONE *AE1*
ISOTYPE *IgG1*
CONTROL *Prostate, Salivary Gland*
LOCALIZATION *Cytoplasmic*

CAT. #	PRESENTATION	VOL/QTY
BSB 5435	Tinto Prediluted	3.0 ml
BSB 5436	Tinto Prediluted	7.0 ml
BSB 5437	Tinto Prediluted	15.0 ml
BSB 5438	Concentrated	0.1 ml
BSB 5439	Concentrated	0.5 ml
BSB 5440	Concentrated	1.0 ml
BSB 5441	control slides	5

Cytokeratin HMW/AE3



IHC of CK HMW/AE3 on an FFPE Salivary Gland Tissue

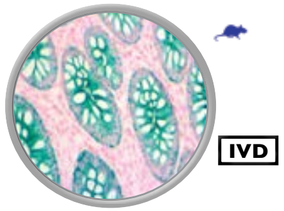
Cytokeratins are intermediate-filament keratins found in the intracytoplasmic cytoskeleton of epithelial tissue. There are two types of cytokeratins: the low-weight, acidic Type I cytokeratins and the high-weight, basic or neutral Type II cytokeratins. Cytokeratins are usually found in pairs comprising a Type I cytokeratin and a Type II cytokeratin. Expression of these cytokeratins is frequently organ or tissue-specific.

Cytokeratin, High Molecular Weight AE3 (HMW, CK 8) is capable of recognizing all basic cytokeratins; therefore, it is a broadly reactive antibody staining most epithelia and their neoplasms. Cytokeratin HMW/AE3 stains normal and neoplastic cells of epithelial origin. CK HMW is primarily found in the non-squamous epithelia and is present in the majority of Adenocarcinomas and Ductal Carcinomas. It is absent in Squamous Cell Carcinomas. Hepatocellular Carcinomas are defined by the use of antibodies that recognize only cytokeratin 8 and 18.

ANTIBODY TYPE *Mouse Monoclonal*
CLONE *AE3*
ISOTYPE *IgG1*
CONTROL *Prostate, Bladder, Salivary Gland*
LOCALIZATION *Cytoplasmic*

CAT. #	PRESENTATION	VOL/QTY
BSB 5442	Tinto Prediluted	3.0 ml
BSB 5443	Tinto Prediluted	7.0 ml
BSB 5444	Tinto Prediluted	15.0 ml
BSB 5445	Concentrated	0.1 ml
BSB 5446	Concentrated	0.5 ml
BSB 5447	Concentrated	1.0 ml
BSB 5448	control slides	5

Cytokeratin OSCAR



IHC of CK OSCAR on an FFPE Colon Tissue

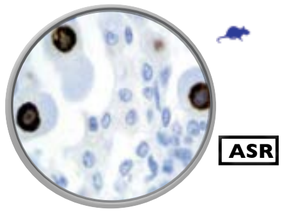
Anti-Cytokeratin OSCAR is well-suited to distinguish Epithelial Carcinoma from Non-epithelial malignancies and is used to aid Epithelial Tumor classification. Anti-Cytokeratin OSCAR identifies a number of bands corresponding to cytokeratins 7, 8, 18 and 19 (additional bands – cytokeratins – may also be detected). This antibody has been used to characterize the source of various neoplasms and to study the distribution of keratin-containing cells in epithelia during normal development and during the development of epithelial neoplasms.

In normal tissues, OSCAR is reactive with most epithelial types tested including bile ducts and hepatocytes in liver, bladder epithelium, breast ducts, bronchial epithelium, endometrium, follicular dendritic cells of lymph node and tonsil, intestinal epithelium of the stomach, duodenum, ileum, colon, rectum, pancreas, ovarian epithelium, pancreatic acini, pituitary acini, pneumocytes, prostate, thyroid and skin. In tumors, OSCAR is reactive with most Carcinomas including Breast, TCC, RCC, Lung, Endometrial CA, Prostate CA, Ovarian CA, HCC, Colorectal CA, Stomach CA and Thyroid CA. It is negative in certain normal tissues including brain, lymphocytes and all cells of hematolymphoid origin, muscle, brain, nerves, endothelium and in certain tumors including Melanoma, Sarcoma, Lymphoma, PNET/Ewing's and GIST. This antibody has shown high sensitivity in recognizing epithelial cells and carcinomas.

ANTIBODY TYPE *Mouse Monoclonal*
CLONE *OSCAR*
ISOTYPE *IgG2a*
CONTROL *Prostate, Skin, Colon, Stomach*
LOCALIZATION *Cytoplasmic*

CAT. #	PRESENTATION	VOL/QTY
BSB 6177	Tinto Prediluted	3.0 ml
BSB 6178	Tinto Prediluted	7.0 ml
BSB 6179	Tinto Prediluted	15.0 ml
BSB 6180	Concentrated	0.1 ml
BSB 6181	Concentrated	0.5 ml
BSB 6182	Concentrated	1.0 ml
BSB 6183	control slides	5

Cytomegalovirus



IHC of CMV on an FFPE Infected Lung Tissue

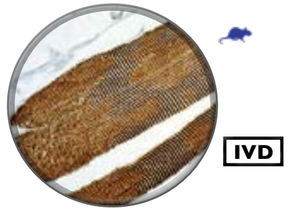
Cytomegalovirus (CMV) is a virus of the Herpes-virus group; in humans it is commonly known as HCMV or Human Herpesvirus 5 (HHV-5). CMV belongs to the Betaherpesvirinae subfamily of Herpesviridae, which also includes Roseolovirus. CMV especially attacks salivary glands. CMV infection can also be life-threatening for patients who are immunocompromised (e.g., patients with HIV or organ-transplant recipients). CMV viruses are found in many mammal species, but CMV species isolated from animals differ from human CMV in terms of genomic structure, and have not been reported to cause human disease.

This Anti-cytomegalovirus antibody cocktail reacts with two different epitopes. The DDG9 antibody reacts with a 76 kDa protein produced by CMV. CCH2 antibody reacts with the early DNA-binding protein p52. There is no cross-reactivity with other Herpesviruses or Adenoviruses. CMV infection is usually seen in immunocompromised patients and involves the GI tract, lung, heart and liver, as well as other organs.

ANTIBODY TYPE *Mouse Monoclonal*
CLONE *8B1.2, 1G5.2 & 2D4.2*
ISOTYPE *IgG2a*
CONTROL *Infected Tissue*
LOCALIZATION *Nuclear*

CAT. #	PRESENTATION	VOL/QTY
BSB 5449	Tinto Prediluted	3.0 ml
BSB 5450	Tinto Prediluted	7.0 ml
BSB 5451	Tinto Prediluted	15.0 ml
BSB 5452	Concentrated	0.1 ml
BSB 5453	Concentrated	0.5 ml
BSB 5454	Concentrated	1.0 ml
BSB 5455	control slides	5

Desmin



IHC of Desmin on an FFPE Skeletal Muscle Tissue

Desmin is a type of intermediate filament found near the Z line in sarcomeres. Both vimentin and desmin are characteristics of mesenchymal cells.

Desmin antibody detects a protein that is expressed by cells of normal smooth, skeletal and cardiac muscles. Light microscopy studies of Desmin have suggested that it is primarily located at or near the periphery of Z lines in striated muscle fibrils. In smooth muscle, Desmin interconnects cytoplasmic dense bodies with membrane-bound dense plaques. Desmin antibody reacts with Leiomyomas, Rhabdomyomas, and Perivascular cells of Glomus Tumors of the skin (if they are of myogenic nature). This antibody is used to demonstrate the myogenic components/derivation of tumors.

ANTIBODY TYPE *Mouse Monoclonal*
CLONE *D33*
ISOTYPE *IgG1/K*
CONTROL *Skeletal Muscle*
LOCALIZATION *Cytoplasmic*

CAT. #	PRESENTATION	VOL/QTY
BSB 5456	Tinto Prediluted	3.0 ml
BSB 5457	Tinto Prediluted	7.0 ml
BSB 5458	Tinto Prediluted	15.0 ml
BSB 5459	Concentrated	0.1 ml
BSB 5460	Concentrated	0.5 ml
BSB 5461	Concentrated	1.0 ml
BSB 5462	control slides	5

Desmin, RMab

IHC of Desmin on an FFPE Uterus Tissue

Desmin is a class III intermediate filament found near the Z line in sarcomeres. Both vimentin and desmin are characteristics of mesenchymal cells.

Desmin antibody detects a protein that is expressed by cells of normal smooth, skeletal and cardiac muscles. Light microscopy studies of desmin suggests that it is primarily located at or near the periphery of Z lines in striated muscle fibrils. In smooth muscle, Desmin interconnects cytoplasmic dense bodies with membrane bound dense plaques. Desmin antibody reacts with Leiomyomas, Rhabdomyomas, and Perivascular cells of Glomus Tumors of the skin (if they are of myogenic nature). This antibody is used to demonstrate the myogenic components/derivation of tumors.

ANTIBODY TYPE *Rabbit Monoclonal*
CLONE *EP15**
ISOTYPE *IgG*
CONTROL *Skeletal Muscle*
LOCALIZATION *Cytoplasmic*

CAT. #	PRESENTATION	VOL/QTY
BSB 6709	Tinto Prediluted	3.0 ml
BSB 6710	Tinto Prediluted	7.0 ml
BSB 6711	Tinto Prediluted	15.0 ml
BSB 6712	Concentrated	0.1 ml
BSB 6713	Concentrated	0.5 ml
BSB 6714	Concentrated	1.0 ml
BSB 6715	control slides	5

DOG1, RMab

IHC of DOG1 on an FFPE GIST Tissue

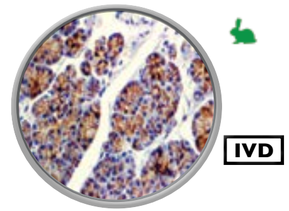
DOG1 (discovered on GIST 1), a cell-surface protein of unknown function, is expressed strongly on the cell surface of GISTs and is rarely expressed in other soft tissue tumors. Among GIST cases with c-Kit mutations, the DOG1 antibody identified 11% more cases than a c-Kit antibody.

DOG1 identifies the vast majority of both c-Kit negative and PDGFRA mutated GIST cases that may still benefit from imatinib mesylate (Gleevac), an inhibitor of the kit tyrosine kinase. In addition, DOG1 immunoreactivity is seen in fewer cases of mesenchymal and epithelial tumors, and melanomas when compared with c-Kit. The use of this highly-sensitive and specific novel marker should increase the accuracy of GIST diagnosis.

ANTIBODY TYPE *Rabbit Monoclonal*
CLONE *RBT-DOG1*
ISOTYPE *IgG*
CONTROL *GIST*
LOCALIZATION *Cytoplasmic, Membranous*

CAT. #	PRESENTATION	VOL/QTY
BSB 6268	Tinto Prediluted	3.0 ml
BSB 6269	Tinto Prediluted	7.0 ml
BSB 6270	Tinto Prediluted	15.0 ml
BSB 6271	Concentrated	0.1 ml
BSB 6272	Concentrated	0.5 ml
BSB 6273	Concentrated	1.0 ml
BSB 6274	control slides	5

E-Cadherin, RMab



IHC of E-Cadherin on an FFPE Pancreas Tissue

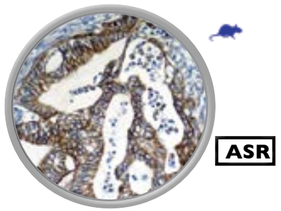
Cadherins are a class of transmembrane proteins. They play an important role in cell adhesion by ensuring cells within tissues are bound together. E-Cadherin is an adhesion protein that is expressed in cells of epithelial lineage. It stains positively in glandular epithelium as well as Adenocarcinomas of the lung and G.I. tract, and ovary. E-Cadherin has been useful in distinguishing Adenocarcinoma from Mesothelioma. It has also been shown to be positive in some Thyroid Carcinomas. It can be used to differentiate Ductal Carcinomas (positive for E-Cadherin) from Lobular Breast Carcinomas.

Loss of E-Cadherin function or expression has been implicated in cancer progression and metastasis. E-Cadherin downregulation decreases the strength of cellular adhesion within a tissue, resulting in an increase in cellular motility. This may then allow cancer cells to cross the basement membrane and invade surrounding tissues. Loss of E-Cadherin expression has been suggested as a poor prognostic sign in Breast Carcinoma and Non-Small Cell Lung Carcinomas.

ANTIBODY TYPE *Rabbit Monoclonal*
CLONE *EP6**
ISOTYPE *IgG*
CONTROL *Pancreas, Lung Carcinoma, Breast Ductal Carcinoma*
LOCALIZATION *Membranous*

CAT. #	PRESENTATION	VOL/QTY
BSB 5463	Tinto Prediluted	3.0 ml
BSB 5464	Tinto Prediluted	7.0 ml
BSB 5465	Tinto Prediluted	15.0 ml
BSB 5466	Concentrated	0.1 ml
BSB 5467	Concentrated	0.5 ml
BSB 5468	Concentrated	1.0 ml
BSB 5469	control slides	5

EGFR



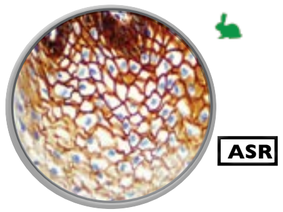
IHC of EGFR on an FFPE Colon Carcinoma Tissue

Epidermal Growth Factor Receptor (EGFR) is the receptor for epidermal growth factor (EGF). It is a member of the ErbB family receptors, a subfamily of four closely related receptor tyrosine kinases: EGFR (ErbB-1), HER-2 neu (ErbB-2), HER-3 (ErbB-3) and HER-4 (ErbB-4).

ANTIBODY TYPE *Mouse Monoclonal*
CLONE *31G7*
ISOTYPE *IgG1*
CONTROL *Skin, Placenta or Squamous Cell Carcinoma*
LOCALIZATION *Cell Membrane*

CAT. #	PRESENTATION	VOL/QTY
BSB 5470	Tinto Prediluted	3.0 ml
BSB 5471	Tinto Prediluted	7.0 ml
BSB 5472	Tinto Prediluted	15.0 ml
BSB 5473	Concentrated	0.1 ml
BSB 5474	Concentrated	0.5 ml
BSB 5475	Concentrated	1.0 ml
BSB 5476	control slides	5

EGFR Phospho, RMab



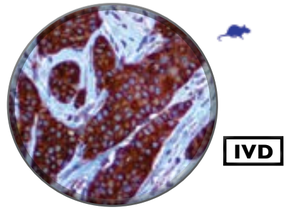
IHC of EGFR Phospho on an FFPE Cervix Tissue

Epidermal Growth Factor Receptor (EGFR) is the receptor for epidermal growth factor (EGF). It is a member of the ErbB family receptors, a subfamily of four closely related receptor tyrosine kinases: EGFR (ErbB-1), HER-2 neu (ErbB-2), HER-3 (ErbB-3) and HER-4 (ErbB-4).

ANTIBODY TYPE *Rabbit Monoclonal*
CLONE *EP11**
ISOTYPE *IgG*
CONTROL *Skin, Placenta or Squamous Cell Carcinoma*
LOCALIZATION *Cell Membrane*

CAT. #	PRESENTATION	VOL/QTY
BSB 6716	Tinto Prediluted	3.0 ml
BSB 6717	Tinto Prediluted	7.0 ml
BSB 6718	Tinto Prediluted	15.0 ml
BSB 6719	Concentrated	0.1 ml
BSB 6720	Concentrated	0.5 ml
BSB 6721	Concentrated	1.0 ml
BSB 6722	control slides	5

EMA



IHC of EMA on an FFPE Breast Tissue

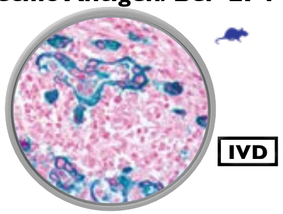
Epithelial Membrane Antigen (EMA) antibody is a mucin-like glycoprotein, shown to be useful as a pan-epithelial marker for detecting early metastatic loci of carcinoma in the bone marrow or liver. It stains normal and neoplastic cells from various tissues, including mammary epithelium, sweat glands and squamous epithelium.

Hepatocellular Carcinoma, Adrenal Carcinoma and Embryonal Carcinomas are consistently EMA negative, so keratin positivity with negative EMA favors one of these tumors. EMA is frequently positive in meningioma, which can be useful when distinguishing it from other intracranial neoplasms. The absence of EMA can also be of value since negative EMA is characteristic of some tumors including Adrenal Carcinoma, Seminomas, Paraganglioma and Hepatoma.

ANTIBODY TYPE *Mouse Monoclonal*
CLONE *E29*
ISOTYPE *IgG2a/K*
CONTROL *Breast, Skin*
LOCALIZATION *Cytoplasmic*

CAT. #	PRESENTATION	VOL/QTY
BSB 5477	Tinto Prediluted	3.0 ml
BSB 5478	Tinto Prediluted	7.0 ml
BSB 5479	Tinto Prediluted	15.0 ml
BSB 5480	Concentrated	0.1 ml
BSB 5481	Concentrated	0.5 ml
BSB 5482	Concentrated	1.0 ml
BSB 5483	control slides	5

EpCAM/Epithelial Specific Antigen/Ber-EP4



IHC of EpCAM on an FFPE Colon Carcinoma Tissue

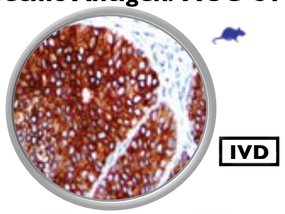
Epithelial Cell Adhesion Molecule (EpCAM) or Epithelial Specific Antigen is a 40kD cell surface antigen that is broadly distributed in epithelial cells and displays a highly conserved expression in carcinomas. These glycoproteins are located on the cell membrane surface and in the cytoplasm of virtually all epithelial cells, with the exception of most squamous epithelia, hepatocytes, renal proximal tubular cells, gastric parietal cells and myoepithelial cells. However, focal positivity may be seen in the basal layer of squamous cell epithelium of endoderm (e.g., palatine tonsils) and mesoderm (e.g., uterine cervix).

EpCAM expression has been reported to be a possible marker of early malignancy, with expression being increased in tumor cells, and de novo expression being seen in dysplastic squamous epithelium. Epithelial specific antigen has been known to play an important role as a tumor-cell marker in lymph nodes from patients with esophageal carcinoma. EpCAM can be used to distinguish among Basal Cell, Basosquamous Carcinomas and Squamous Cell Carcinomas of the skin.

ANTIBODY TYPE *Mouse Monoclonal*
CLONE *Ber-EP4*
ISOTYPE *IgG1/K*
CONTROL *Adenocarcinoma*
LOCALIZATION *Cytoplasmic*

CAT. #	PRESENTATION	VOL/QTY
BSB 6275	Tinto Prediluted	3.0 ml
BSB 6276	Tinto Prediluted	7.0 ml
BSB 6277	Tinto Prediluted	15.0 ml
BSB 6278	Concentrated	0.1 ml
BSB 6279	Concentrated	0.5 ml
BSB 6280	Concentrated	1.0 ml
BSB 6281	control slides	5

EpCAM/Epithelial Specific Antigen/MOC-31



IHC of EpCAM on an FFPE Breast Cancer Tissue

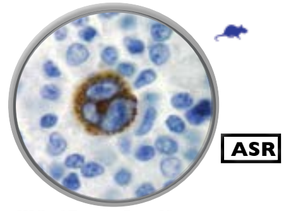
Epithelial Cell Adhesion Molecule/EpCAM, consists of two 34 and 39 kD glycoproteins. These glycoproteins are located on the cell membrane surface and in the cytoplasm of virtually all epithelial cells with the exception of most squamous epithelia, hepatocytes, renal proximal tubular cells, gastric parietal cells and myoepithelial cells.

Anti-MOC-31 antibody has been used to distinguish adenocarcinoma from mesothelioma and hepatocellular carcinoma. This antibody is also useful in distinguishing serous carcinomas of the ovary from mesothelioma.

ANTIBODY TYPE *Mouse Monoclonal*
CLONE *MOC-31*
ISOTYPE *IgG1/K*
CONTROL *Adenocarcinomas*
LOCALIZATION *Cytoplasmic*

CAT. #	PRESENTATION	VOL/QTY
BSB 6723	Tinto Prediluted	3.0 ml
BSB 6724	Tinto Prediluted	7.0 ml
BSB 6725	Tinto Prediluted	15.0 ml
BSB 6726	Concentrated	0.1 ml
BSB 6727	Concentrated	0.5 ml
BSB 6728	Concentrated	1.0 ml
BSB 6729	control slides	5

Epstein Barr Virus, LMP-1



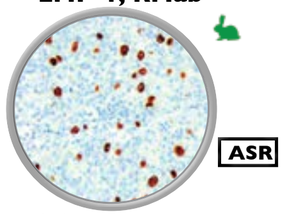
IHC of Epstein Barr Virus on an FFPE Hodgkin's Lymphoma Tissue

The Epstein-Barr virus (EBV), also called Human Herpesvirus 4 (HHV-4), is a virus of the Herpes family, and is one of the most common viruses in humans. The virus can execute many distinct programs of gene expression, which can be broadly categorized as being lytic cycle or latent cycle. The lytic cycle, or productive infection, results in staged expression of several viral proteins with the ultimate objective of producing infectious virions. The latent cycle (lysogenic) programs are those that do not result in production of virions. A very limited, distinct set of viral proteins are produced during latent cycle infection. These include Epstein-Barr nuclear antigens EBNA-1, EBNA-2, EBNA-3A, EBNA-3B, EBNA-3C, EBNA-leader protein (EBNA-LP), latent membrane proteins LMP-1, LMP-2A and LMP-2B and the Epstein-Barr encoded RNAs (EBERs). In addition, EBV codes for at least twenty microRNAs which are expressed in latently infected cells.

ANTIBODY TYPE *Mouse Monoclonal*
CLONE *CS1-4*
ISOTYPE *IgG1*
CONTROL *Infected Tissue, Hodgkin's Lymphoma*
LOCALIZATION *Cytoplasmic*

CAT. #	PRESENTATION	VOL/QTY
BSB 5484	Tinto Prediluted	3.0 ml
BSB 5485	Tinto Prediluted	7.0 ml
BSB 5486	Tinto Prediluted	15.0 ml
BSB 5487	Concentrated	0.1 ml
BSB 5488	Concentrated	0.5 ml
BSB 5489	Concentrated	1.0 ml
BSB 5490	control slides	5

Epstein Barr Virus, LMP-1, RMab



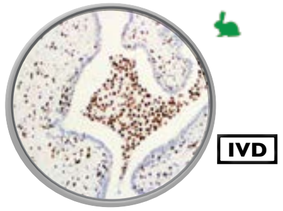
IHC of Epstein Barr Virus on an FFPE Hodgkin's Lymphoma Tissue

The Epstein-Barr virus (EBV), also called Human Herpesvirus 4 (HHV-4), is a virus of the Herpes family, and is one of the most common viruses in humans. The virus can execute many distinct programs of gene expression, which can be broadly categorized as being lytic cycle or latent cycle. The lytic cycle, or productive infection, results in staged expression of several viral proteins with the ultimate objective of producing infectious virions. The latent cycle (lysogenic) programs are those that do not result in production of virions. A very limited, distinct set of viral proteins are produced during latent cycle infection. These include Epstein-Barr nuclear antigens EBNA-1, EBNA-2, EBNA-3A, EBNA-3B, EBNA-3C, EBNA-leader protein (EBNA-LP), latent membrane proteins LMP-1, LMP-2A and LMP-2B and the Epstein-Barr encoded RNAs (EBERs). In addition, EBV codes for at least twenty microRNAs which are expressed in latently infected cells.

ANTIBODY TYPE *Rabbit Monoclonal*
CLONE *MRQ-47*
ISOTYPE *IgG*
CONTROL *Infected Tissue, Hodgkin's Lymphoma*
LOCALIZATION *Cytoplasmic*

CAT. #	PRESENTATION	VOL/QTY
BSB 6730	Tinto Prediluted	3.0 ml
BSB 6731	Tinto Prediluted	7.0 ml
BSB 6732	Tinto Prediluted	15.0 ml
BSB 6733	Concentrated	0.1 ml
BSB 6734	Concentrated	0.5 ml
BSB 6735	Concentrated	1.0 ml
BSB 6736	control slides	5

ERG, RMab



IHC of ERG on an FFPE Prostate Carcinoma Tissue

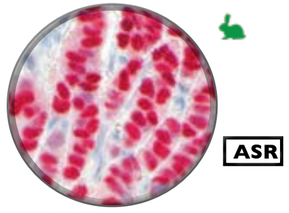
ERG belongs to the ETS family that plays important roles in cell development, differentiation, proliferation, apoptosis and tissue remodeling. The aberrant expression of several ETS proteins is involved in tumor development and progression. ERG is linked to normal processes such as mesoderm formation. TMPRSS2-ERG fusion, which occurs on account of translocations and interstitial deletions, is implicated in aggressive forms of prostate cancer.

ERG overexpression is associated with aggressive tumor behavior and patient survival in prostate cancer. ERG antibody labels endothelial cells, lymphocytes, and prostate cancer cells.

ANTIBODY TYPE *Rabbit Monoclonal*
CLONE *EP111**
ISOTYPE *IgG*
CONTROL *Prostate*
LOCALIZATION *Nuclear*

CAT. #	PRESENTATION	VOL/QTY
BSB 6737	Tinto Prediluted	3.0 ml
BSB 6738	Tinto Prediluted	7.0 ml
BSB 6739	Tinto Prediluted	15.0 ml
BSB 6740	Concentrated	0.1 ml
BSB 6741	Concentrated	0.5 ml
BSB 6742	Concentrated	1.0 ml
BSB 6743	control slides	5

Estrogen Receptor, RMab



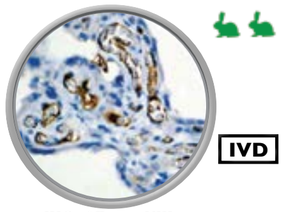
IHC of Estrogen Receptor on an FFPE Breast Tissue

Estrogen receptor (ER) is a nuclear receptor for estrogens such as estradiol (the main endogenous human estrogen). The two different estrogen receptor proteins produced from the ESR1 and ESR2 genes are usually called the alpha and beta receptors. This ER antibody recognizes a protein of 67 kDa, which is identified as estrogen receptor (ER) alpha.

ANTIBODY TYPE *Rabbit Monoclonal*
CLONE *RBT11*
ISOTYPE *IgG*
CONTROL *Breast Carcinoma*
LOCALIZATION *Nuclear*

CAT. #	PRESENTATION	VOL/QTY
BSB 5491	Tinto Prediluted	3.0 ml
BSB 5492	Tinto Prediluted	7.0 ml
BSB 5493	Tinto Prediluted	15.0 ml
BSB 5494	Concentrated	0.1 ml
BSB 5495	Concentrated	0.5 ml
BSB 5496	Concentrated	1.0 ml
BSB 5497	control slides	5

Factor VIII-Related Antigen



IHC of Factor VIII on an FFPE Placenta Tissue

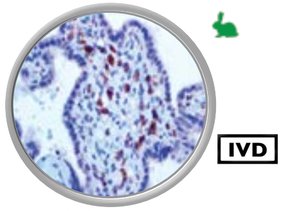
Factor VIII (F VIII) is an essential clotting factor. The lack of normal F VIII causes Hemophilia A, an inherited bleeding disorder. FVIII is a glycoprotein procofactor synthesized and released into the bloodstream by the liver. In the circulating blood, it is mainly bound to von Willebrand factor (vWF, also known as Factor VIII-related antigen) to form a stable complex. Upon activation by thrombin or Factor Xa, it dissociates from the complex to interact with Factor IXa, the coagulation cascade. It is a cofactor to Factor IXa in the activation of Factor X, which, in turn, with its cofactor Factor Va, activates more thrombin. Thrombin cleaves fibrinogen into fibrin which polymerizes and crosslinks (using Factor XIII) into a blood clot.

This antibody reacts with endothelial cells in normal, reactive, and neoplastic blood cells. F VIII antibody has helped to establish the endothelial nature of some lesions of disputed histogenesis, e.g., Kaposi`s Sarcoma and Cardiac Myxoma. Not all endothelial cells synthesize (or store) this molecule; therefore, it should not be surprising that not all tumors of endothelial differentiation (benign or malignant) react with this antigen.

ANTIBODY TYPE *Rabbit Polyclonal*
CLONE *N/A*
ISOTYPE *IgG*
CONTROL *Skin, Placenta*
LOCALIZATION *Cytoplasmic*

CAT. #	PRESENTATION	VOL/QTY
BSB 5498	Tinto Prediluted	3.0 ml
BSB 5499	Tinto Prediluted	7.0 ml
BSB 5500	Tinto Prediluted	15.0 ml
BSB 5501	Concentrated	0.1 ml
BSB 5502	Concentrated	0.5 ml
BSB 5503	Concentrated	1.0 ml
BSB 5504	control slides	5

Factor XIIIa, RMab



IHC of Factor XIIIa on an FFPE Placenta Tissue

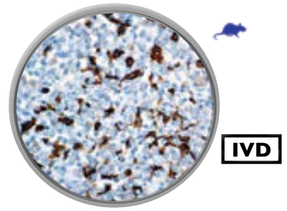
Factor XIII or fibrin stabilizing factor is an enzyme of the blood coagulation system that crosslinks fibrin. When thrombin has converted fibrinogen to fibrin, the latter forms a proteinaceous network in which every E-unit is crosslinked to only one D-unit. Factor XIII is activated by thrombin into Factor XIIIa; its activation into Factor XIIIa requires calcium as a cofactor. Factor XIIIa has been identified in platelets, megakaryocytes, and fibroblast-like mesenchymal or histiocytic cells present in the placenta, uterus, and prostate; it is also present in monocytes, macrophages and dermal dendritic cells.

Anti-Factor XIIIa has been found to be useful in differentiating between Dermatofibroma (90% (+)), Dermatofibrosarcoma Protuberans (25%(+)) and Desmoplastic Malignant Melanoma (0%(+)). Factor XIIIa positivity is also seen in Capillary Hemagioblastoma (100%(+)), Hemangioendothelioma (100%(+)), Hemangiopericytoma (100%(+)), Xanthogranuloma (100%(+)), Xanthoma (100(+)), Hepatocellular Carcinoma (93%(+)), Glomus Tumor (80%(+)), and Meningioma 80%(+)).

ANTIBODY TYPE *Rabbit Monoclonal*
CLONE *EP3372**
ISOTYPE *IgG*
CONTROL *Dermatofibroma, Placenta*
LOCALIZATION *Cytoplasmic*

CAT. #	PRESENTATION	VOL/QTY
BSB 5505	Tinto Prediluted	3.0 ml
BSB 5506	Tinto Prediluted	7.0 ml
BSB 5507	Tinto Prediluted	15.0 ml
BSB 5508	Concentrated	0.1 ml
BSB 5509	Concentrated	0.5 ml
BSB 5510	Concentrated	1.0 ml
BSB 5511	control slides	5

Fascin



IHC of Fascin on an FFPE Hodgkin's Lymphoma Tissue

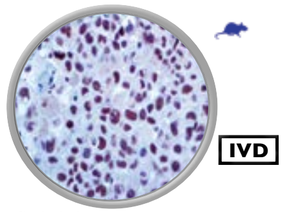
Fascin, encoded by the human homolog for sn (hsn) gene, has been localized to microspikes and stress fibers of cultured cells where it is thought to be involved in the formation of microfilament bundles. It is expressed predominantly in dendritic cells. Lymphoid cells, myeloid cells and plasma cells are negative. However, Reed Sternberg cells in Hodgkin's Lymphoma are positive for Fascin staining. Epstein-Barr virus may induce expression of Fascin in B-cells.

Fascin is a very sensitive marker for Reed-Sternberg cells and variants in nodular sclerosis, mixed cellularity, and lymphocyte depletion Hodgkin's Disease. This marker might be helpful in distinguishing between Hodgkin's Disease and Non-Hodgkin Lymphoma in difficult cases. Also, the lack of expression of Fascin in the neoplastic follicles in Follicular Lymphoma can be helpful in distinguishing these lymphomas from reactive Follicular Hyperplasia in which the number of follicular dendritic cells is normal or increased.

ANTIBODY TYPE *Mouse Monoclonal*
CLONE *55-k2*
ISOTYPE *IgG1*
CONTROL *Hodgkin's Lymphoma, Lymph Node, Tonsil*
LOCALIZATION *Cytoplasmic*

CAT. #	PRESENTATION	VOL/QTY
BSB 5512	Tinto Prediluted	3.0 ml
BSB 5513	Tinto Prediluted	7.0 ml
BSB 5514	Tinto Prediluted	15.0 ml
BSB 5515	Concentrated	0.1 ml
BSB 5516	Concentrated	0.5 ml
BSB 5517	Concentrated	1.0 ml
BSB 5518	control slides	5

Fli-1



IHC of Fli-1 on an FFPE PNET Tissue

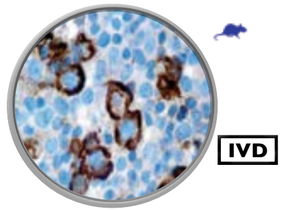
Fli-1 protein, a member of the ETS family of DNA binding transcription factors, is involved in cellular proliferation and tumorigenesis. Approximately 90% of Ewing's Sarcoma/Primitive Neuroectodermal Tumors (ES/PNET) have a specific translocation, t(11;22)(q24;q12), which results in fusion of EWS to Fli-1, and production of an EWS-Fli-1 fusion protein, which can be detected by this antibody. Among normal tissues only endothelial cells and small lymphocytes express Fli-1. Fli-1 has been found to be expressed in the great majority of vascular tumors including Angiosarcomas, Hemangioendotheliomas, Hemangiomas, and Kaposi's Sarcomas.

It has been reported that the high sensitivity and specificity of Fli-1 is equal to or exceeds that of the established vascular markers, CD31, CD34, and Factor VIII. As the first nuclear marker of endothelium (rather than cytoplasmic or membranous), Fli-1 immunostaining also generally lacks cytoplasmic staining artifacts that are the result of endogenous peroxidases or biotin.

ANTIBODY TYPE *Mouse Monoclonal*
CLONE *G146-222*
ISOTYPE *IgG2b*
CONTROL *Angiosarcoma, Hemangiomas, PNET*
LOCALIZATION *Nuclear*

CAT. #	PRESENTATION	VOL/QTY
BSB 5519	Tinto Prediluted	3.0 ml
BSB 5520	Tinto Prediluted	7.0 ml
BSB 5521	Tinto Prediluted	15.0 ml
BSB 5522	Concentrated	0.1 ml
BSB 5523	Concentrated	0.5 ml
BSB 5524	Concentrated	1.0 ml
BSB 5525	control slides	5

Follicular Dendritic Cell



IHC of FDC on an FFPE Tonsil Tissue

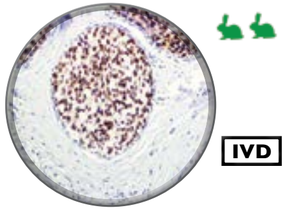
Follicular Dendritic Cells (FDC) are immune cells whose main function is to process antigen material and present it superficially to other cells of the immune system. Dendritic cells are present in small quantities in tissues that are in contact with the external environment, mainly the skin (where they are often called Langerhans cells) and the inner lining of the nose, lungs, stomach and intestines. They can also be found in an immature state in the blood. Once activated, they migrate to the lymphoid tissues where they interact with T-cells and B-cells to initiate and shape the immune response.

Anti-FDC is useful in the identification of follicular dendritic cell matrix found in normal lymph nodes and tonsillar tissue. This antibody has been found to label cells in approximately 60% of Anaplastic Large-Cell Lymphomas, and approximately 45% of T-cell Lymphomas. This antibody also labels Follicular Dendritic Cell Tumors. Several normal non-lymphoid tissues are labeled with anti-FDC: pancreatic islet cells, gastric chief cells, myelin sheaths, salivary glands, Leydig cells of the testis, and endothelial cells.

ANTIBODY TYPE *Mouse Monoclonal*
CLONE *CNA.42*
ISOTYPE *IgM/K*
CONTROL *Tonsil, Lymph Node*
LOCALIZATION *Cytoplasmic*

CAT. #	PRESENTATION	VOL/QTY
BSB 5526	Tinto Prediluted	3.0 ml
BSB 5527	Tinto Prediluted	7.0 ml
BSB 5528	Tinto Prediluted	15.0 ml
BSB 5529	Concentrated	0.1 ml
BSB 5530	Concentrated	0.5 ml
BSB 5531	Concentrated	1.0 ml
BSB 5532	control slides	5

FOXA1



IHC of FOXA1 on an FFPE Breast Carcinoma Tissue

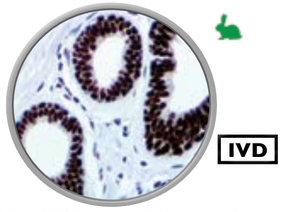
FOXA1 is a member of the forkhead class of DNA-binding proteins. These hepatocyte nuclear factors are transcriptional activators for liver-specific transcripts such as albumin and transthyretin, and they also interact with chromatin. FOXA1 is a downstream target of GATA3 in the mammary gland.

FOXA1 in breast cancer is highly correlated with ERα+, GATA3+, and PR+ protein expression as well as endocrine signaling. FOXA1 absence in ERα+ cancer might identify ERa cancers that are resistant to endocrine therapy. In ERα– breast cancer, FOXA1 is highly correlated with improved disease free survival and GATA3. Expression in ERα– cancers may identify a subset of tumors that is responsive to other endocrine therapies such as androgen receptor antagonist treatment.

ANTIBODY TYPE *Rabbit Polyclonal*
CLONE *N/A*
ISOTYPE *IgG*
CONTROL *Breast Carcinoma, Prostate Carcinoma*
LOCALIZATION *Nuclear, Cytoplasmic*

CAT. #	PRESENTATION	VOL/QTY
BSB 6744	Tinto Prediluted	3.0 ml
BSB 6745	Tinto Prediluted	7.0 ml
BSB 6746	Tinto Prediluted	15.0 ml
BSB 6747	Concentrated	0.1 ml
BSB 6748	Concentrated	0.5 ml
BSB 6749	Concentrated	1.0 ml
BSB 6750	control slides	5

FOXP1, RMab



IHC of FOXP1 on an FFPE Breast Tissue

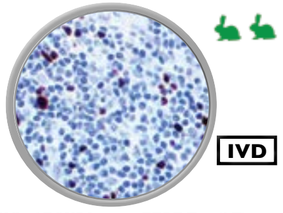
FOXP1 is part of the forkhead box (FOX) transcription factor family. Forkhead box transcription factors play important roles in regulation of tissue- and cell-type specific gene transcription during both development and adulthood. The FOXP1 protein contains both DNA-binding- and protein-protein binding-domains. FOXP1 is a transcriptional repressor and is responsible for regulating a variety of important aspects of development including tissue development of the lungs, brain, thymus and heart. It is also important in muscle development of the esophagus and esophageal epithelium and for regulating lung airway morphogenesis.

Strong expression of FOXP1 is associated with poor disease-free survival and transformation to Diffuse Large B-cell Lymphomas. Recently, studies suggested a role of FOXP1 in the regulation of ER expression. FOXP1 expression is correlated with ER expression and improved survival in breast cancer patients. Nuclear expression of FOXP1 is associated with ER expression, while cytoplasmic expression of FOXP1 is linked to myometrial invasion in endometrial cancer.

ANTIBODY TYPE *Rabbit Monoclonal*
CLONE *EP137**
ISOTYPE *IgG*
CONTROL *Tonsil, Lymph Node*
LOCALIZATION *Nuclear, Cytoplasmic*

CAT. #	PRESENTATION	VOL/QTY
BSB 6751	Tinto Prediluted	3.0 ml
BSB 6752	Tinto Prediluted	7.0 ml
BSB 6753	Tinto Prediluted	15.0 ml
BSB 6754	Concentrated	0.1 ml
BSB 6755	Concentrated	0.5 ml
BSB 6756	Concentrated	1.0 ml
BSB 6757	control slides	5

FOXP3



IHC of FOXP3 on an FFPE Tonsil Tissue

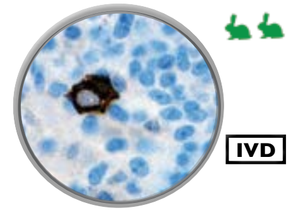
FOXP3, also known as scurfin, is a protein involved in immune system responses. A member of the forkhead box protein family, FOXP3 appears to function as a transcription factor in the development and function of regulatory T cells. In regulatory T cell model systems, the FOXP3 transcription factor occupies the promoters of many important for regulatory T-cell function, and may repress transcription of key genes following stimulation of T cell receptors.

Alterations in numbers of regulatory T-cells—in particular those that express FOXP3—are found in a number of disease states. Patients with tumors have a local relative excess of FOXP3 positive T cells which inhibits the body's ability to suppress the formation of cancerous cells.

ANTIBODY TYPE *Rabbit Polyclonal*
CLONE *N/A*
ISOTYPE *IgG*
CONTROL *Tonsil, Lymph Node*
LOCALIZATION *Nuclear*

CAT. #	PRESENTATION	VOL/QTY
BSB 6758	Tinto Prediluted	3.0 ml
BSB 6759	Tinto Prediluted	7.0 ml
BSB 6760	Tinto Prediluted	15.0 ml
BSB 6761	Concentrated	0.1 ml
BSB 6762	Concentrated	0.5 ml
BSB 6763	Concentrated	1.0 ml
BSB 6764	control slides	5

FSH



IHC of FSH on an FFPE Pituitary Tissue

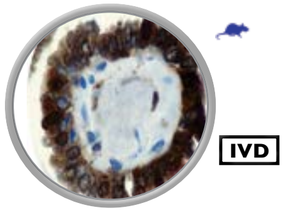
Follicle stimulating hormone (FSH) is a hormone synthesized and secreted by gonadotropes in the anterior pituitary gland. In the ovary, FSH stimulates the growth of immature Graafian follicles to maturation. As the follicle grows, it releases inhibin, which deactivates the FSH production. In men, FSH enhances the production of androgen-binding protein by the Sertoli cells of the testis and is critical for spermatogenesis. FSH and LH act synergistically in reproduction.

FSH is a useful marker in the classification of pituitary tumors and the study of pituitary disease. It reacts with FSH-producing cells.

ANTIBODY TYPE *Rabbit Polyclonal*
CLONE *N/A*
ISOTYPE *IgG*
CONTROL *Normal Pituitary*
LOCALIZATION *Cytoplasmic*

CAT. #	PRESENTATION	VOL/QTY
BSB 5533	Tinto Prediluted	3.0 ml
BSB 5534	Tinto Prediluted	7.0 ml
BSB 5535	Tinto Prediluted	15.0 ml
BSB 5536	Concentrated	0.1 ml
BSB 5537	Concentrated	0.5 ml
BSB 5538	Concentrated	1.0 ml
BSB 5539	control slides	5

Galectin-3



IHC of Galectin-3 on a FFPE Follicular Carcinoma of Thyroid Tissue

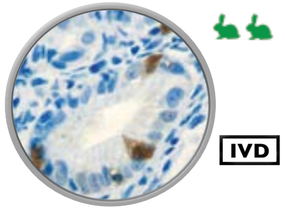
Galectin-3 is a 31 kDa beta-galactosidase binding lectin. It has been associated with binding to the basement membrane glycoprotein laminin. Galectin-3 is normally distributed in epithelia of many organs and various inflammatory cells, including macrophages, as well as dendritic cells and Kupffer cells. The expression of this lectin is up-regulated during inflammation, cell proliferation, cell differentiation and through trans-activation by viral proteins.

Anti-Galectin-3 has been demonstrated to be valuable in differentiating between benign and malignant thyroid neoplasms in both histologic sections and Fine Needle Aspiration Biopsy material. Anti-Galectin-3 antibody has also been useful in identifying Anaplastic Large Cell Lymphoma.

ANTIBODY TYPE	*Mouse Monoclonal*
CLONE	*9C4*
ISOTYPE	*IgG1*
CONTROL	*Papillary, Follicular Carcinoma of Thyroid*
LOCALIZATION	*Cytoplasmic*

CAT. #	PRESENTATION	VOL/QTY
BSB 5540	Tinto Prediluted	3.0 ml
BSB 5541	Tinto Prediluted	7.0 ml
BSB 5542	Tinto Prediluted	15.0 ml
BSB 5543	Concentrated	0.1 ml
BSB 5544	Concentrated	0.5 ml
BSB 5545	Concentrated	1.0 ml
BSB 5546	control slides	5

Gastrin



IHC of Gastrin on an FFPE Stomach Tissue

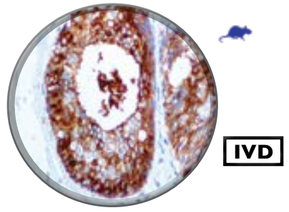
Gastrin is a linear peptide hormone produced by G-cells of the duodenum and in the pyloric antrum of the stomach. It is secreted into the bloodstream.

Gastrin antibody gives positive staining of G-cells of human antral/pyloric mucosa and cells producing gastrin or a structural gastrin analogue as is seen in the stomach. No staining of other cells or tissue types has been observed. This antibody may react with sulfated and non-sulfated forms of gastrin. The antibody cross-reacts with more than 50% of the present choleocystokinin octapeptide.

ANTIBODY TYPE	*Rabbit Polyclonal*
CLONE	*N/A*
ISOTYPE	*IgG*
CONTROL	*Stomach*
LOCALIZATION	*Cytoplasmic*

CAT. #	PRESENTATION	VOL/QTY
BSB 5547	Tinto Prediluted	3.0 ml
BSB 5548	Tinto Prediluted	7.0 ml
BSB 5549	Tinto Prediluted	15.0 ml
BSB 5550	Concentrated	0.1 ml
BSB 5551	Concentrated	0.5 ml
BSB 5552	Concentrated	1.0 ml
BSB 5553	control slides	5

GCDFP-15



IHC of GCDFP-15 on an FFPE Breast Carcinoma Tissue

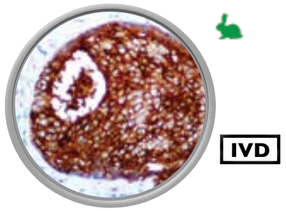
Gross Cystic Disease is a common premenopausal disorder in which gross cysts are the predominant pathologic lesion. It is characterized by production of a fluid secretion which accumulates in the breast cysts. Gross Cystic Disease fluid is a pathologic secretion from breast composed of several glycoproteins, including a unique 15 kDa monomer protein, GCDFP-15. The cells within the body that produce GCDFP-15 appear to be restricted primarily to those with apocrine function such as breast cysts and in apocrine glands in the axilla, vulva, eyelid, and ear canal.

Studies have found GCDFP-15 to be a highly specific and sensitive marker for breast cancer. Approximately 70% of breast carcinomas stain positive with antibody to GCDFP-15. In contrast, Colorectal Carcinomas, as well as Mesotheliomas, do not stain with this antibody. Lung Adenocarcinomas rarely stain with this antibody.

ANTIBODY TYPE	*Mouse Monoclonal*
CLONE	*23A3*
ISOTYPE	*IgG2a*
CONTROL	*Breast, Breast Carcinoma, Sweat Glands in Skin*
LOCALIZATION	*Cytoplasmic*

CAT. #	PRESENTATION	VOL/QTY
BSB 5554	Tinto Prediluted	3.0 ml
BSB 5555	Tinto Prediluted	7.0 ml
BSB 5556	Tinto Prediluted	15.0 ml
BSB 5557	Concentrated	0.1 ml
BSB 5558	Concentrated	0.5 ml
BSB 5559	Concentrated	1.0 ml
BSB 5560	control slides	5

GCDFP-15, RMab



IHC of GCDFP-15 on an FFPE Breast Carcinoma Tissue

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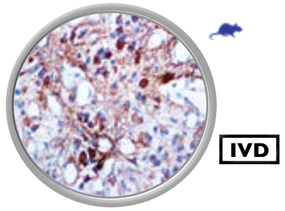
ANTIBODY TYPE	*Rabbit Monoclonal*
CLONE	*EP95**
ISOTYPE	*IgG*
CONTROL	*Breast, Breast Carcinoma, Sweat Glands in Skin*
LOCALIZATION	*Cytoplasmic*

CAT. #	PRESENTATION	VOL/QTY
BSB 6765	Tinto Prediluted	3.0 ml
BSB 6766	Tinto Prediluted	7.0 ml
BSB 6767	Tinto Prediluted	15.0 ml
BSB 6768	Concentrated	0.1 ml
BSB 6769	Concentrated	0.5 ml
BSB 6770	Concentrated	1.0 ml
BSB 6771	control slides	5

GFAP



IHC of GFAP on an FFPE Brain Tissue

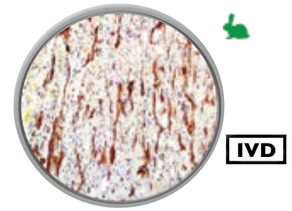
Glial fibrillary acidic protein or GFAP is a Type III protein of the intermediate filaments principally found in astrocytes in the central nervous system, but can also be found in neurons, hepatic stellate cells, kidney mesangial cells, pancreatic stellate cells, and Leydig cells. It has a role in the cytoskeleton of the astrocyte and possibly many other stellate-shaped cells.

Antibodies to GFAP are very useful as markers of astrocytic cells. In addition, many types of brain tumors, presumably derived from astrocytic cells, heavily express GFAP. This marker is mainly used to distinguish neoplasms of astrocytic origin from other neoplasms in the central nervous system.

ANTIBODY TYPE	*Mouse Monoclonal*
CLONE	*G-A-5*
ISOTYPE	*IgG1*
CONTROL	*Brain*
LOCALIZATION	*Cytoplasmic*

CAT. #	PRESENTATION	VOL/QTY
BSB 5561	Tinto Prediluted	3.0 ml
BSB 5562	Tinto Prediluted	7.0 ml
BSB 5563	Tinto Prediluted	15.0 ml
BSB 5564	Concentrated	0.1 ml
BSB 5565	Concentrated	0.5 ml
BSB 5566	Concentrated	1.0 ml
BSB 5567	control slides	5

GFAP, RMab



IHC of GFAP on an FFPE Brain Tissue

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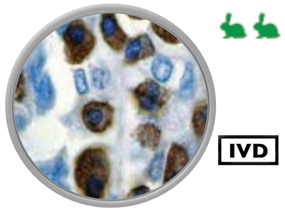
Antibodies to GFAP are very useful as markers of astrocytic cells. In addition, many types of brain tumors, presumably derived from astrocytic cells, heavily express GFAP. This marker is mainly used to distinguish neoplasms of astrocytic origin from other neoplasms in the central nervous system.

ANTIBODY TYPE	*Rabbit Monoclonal*
CLONE	*EP13**
ISOTYPE	*IgG*
CONTROL	*Brain*
LOCALIZATION	*Cytoplasmic*

CAT. #	PRESENTATION	VOL/QTY
BSB 6772	Tinto Prediluted	3.0 ml
BSB 6773	Tinto Prediluted	7.0 ml
BSB 6774	Tinto Prediluted	15.0 ml
BSB 6775	Concentrated	0.1 ml
BSB 6776	Concentrated	0.5 ml
BSB 6777	Concentrated	1.0 ml
BSB 6778	control slides	5

GH



IHC of GH on an FFPE Pituitary Tissue

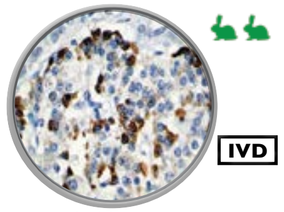
Growth hormone (GH or somatotropin) is a 191 amino acid, single-chain polypeptide hormone which is synthesized, stored and secreted by the somatotroph cells within the lateral wings of the anterior pituitary gland, which stimulates growth and cell reproduction in humans and other animals.

GH is a useful marker in classification of pituitary tumors and the study of pituitary disease (acromegaly). It reacts with GH-producing cells.

ANTIBODY TYPE *Rabbit Polyclonal*
CLONE *N/A*
ISOTYPE *IgG*
CONTROL *Normal Pituitary*
LOCALIZATION *Cytoplasmic*

CAT. #	PRESENTATION	VOL/QTY
BSB 5568	Tinto Prediluted	3.0 ml
BSB 5569	Tinto Prediluted	7.0 ml
BSB 5570	Tinto Prediluted	15.0 ml
BSB 5571	Concentrated	0.1 ml
BSB 5572	Concentrated	0.5 ml
BSB 5573	Concentrated	1.0 ml
BSB 5574	control slides	5

Glucagon



IHC of Glucagon on an FFPE Pancreas Tissue

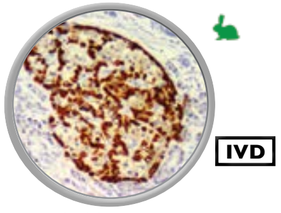
Glucagon is a 29-amino acid polypeptide acting as an important hormone in carbohydrate metabolism. The hormone is synthesized and secreted from alpha cells of the islets of Langerhans, which are located in the endocrine portion of the pancreas. Abnormally-elevated levels of glucagon may be caused by pancreatic tumors such as glucagonoma, symptoms of which include necrolytic migratory erythema (NME), elevated amino acids and hyperglycemia. It may occur alone or in the context of Multiple Endocrine Neoplasia Type 1.

Glucagon antibody detects glucagon-secreting cells and tumors such as glucagonomas. Studies show that approximately 80% of glucagonomas are malignant and these patients have a syndrome most often initially recognized by dermatologists. Symptoms include necrolytic migratory erythema as well as diabetes, anemia, stomatitis, weight loss, frequent venous thrombosis, and in some instances, diarrhea and psychiatric disturbances. The diagnosis may be readily confirmed by the demonstration of elevated plasma glucagon concentration.

ANTIBODY TYPE *Rabbit Polyclonal*
CLONE *N/A*
ISOTYPE *IgG*
CONTROL *Pancreas*
LOCALIZATION *Cytoplasmic*

CAT. #	PRESENTATION	VOL/QTY
BSB 5575	Tinto Prediluted	3.0 ml
BSB 5576	Tinto Prediluted	7.0 ml
BSB 5577	Tinto Prediluted	15.0 ml
BSB 5578	Concentrated	0.1 ml
BSB 5579	Concentrated	0.5 ml
BSB 5580	Concentrated	1.0 ml
BSB 5581	control slides	5

Glucagon, RMab



IHC of Glucagon on an FFPE Pancreas Tissue

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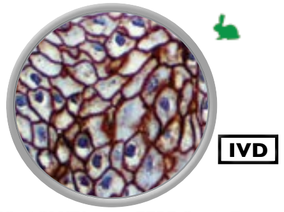
Glucagon antibody detects glucagon-secreting cells and tumors such as glucagonomas. Studies show that approximately 80% of glucagonomas are malignant and these patients have a syndrome most often initially recognized by dermatologists. Symptoms include necrolytic migratory erythema as well as diabetes, anemia, stomatitis, weight loss, frequent venous thrombosis, and in some instances, diarrhea and psychiatric disturbances. The diagnosis may be readily confirmed by the demonstration of elevated plasma glucagon concentration.

ANTIBODY TYPE *Rabbit Monoclonal*
CLONE *EP74**
ISOTYPE *IgG*
CONTROL *Pancreas*
LOCALIZATION *Cytoplasmic*

CAT. #	PRESENTATION	VOL/QTY
BSB 2328	Tinto Prediluted	3.0 ml
BSB 2329	Tinto Prediluted	7.0 ml
BSB 2330	Tinto Prediluted	15.0 ml
BSB 2331	Concentrated	0.1 ml
BSB 2332	Concentrated	0.5 ml
BSB 2333	Concentrated	1.0 ml
BSB 2334	control slides	5

GLUT1, RMab



IHC of GLUT1 on an FFPE Cervix Tissue

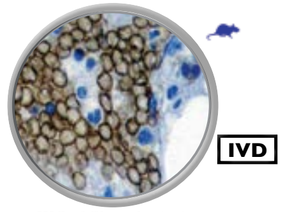
GLUT1 facilitates the transport of glucose across the plasma membranes of mammalian cells. Energy-yielding metabolism in erythrocytes depends on a constant supply of glucose from blood plasma. Glucose enters the erythrocyte by facilitated diffusion via a specific glucose transporter, at a rate about 50,000 times greater than uncatalyzed transmembrane diffusion. GLUT1 is a type III integral protein with 12 hydrophobic segments, each of which is believed to form a membrane-spanning helix. It is responsible for the low-level of basal glucose uptake required to sustain respiration in all cells. GLUT1 is also a major receptor for the uptake of Vitamin C as well as glucose.

GLUT1 is expressed at variable levels in many human tissues. Overexpression of GLUT1 has been linked to tumor progression or poor survival of patients with carcinomas of the colon, breast, cervix, lung, bladder and mesothelioma. It can be used to distinguish between malignant mesothelioma (positve) from reactive mesothelium (negative).

ANTIBODY TYPE *Rabbit Monoclonal*
CLONE *EP141**
ISOTYPE *IgG*
CONTROL *Colon Carcinoma, Mesothelioma, Placenta*
LOCALIZATION *Membranous*

CAT. #	PRESENTATION	VOL/QTY
BSB 6779	Tinto Prediluted	3.0 ml
BSB 6780	Tinto Prediluted	7.0 ml
BSB 6781	Tinto Prediluted	15.0 ml
BSB 6782	Concentrated	0.1 ml
BSB 6783	Concentrated	0.5 ml
BSB 6784	Concentrated	1.0 ml
BSB 6785	control slides	5

Glycophorin A



IHC of Glycophorin A on an FFPE Bone Marrow Tissue

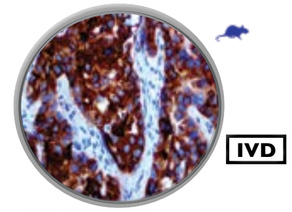
Glycophorins A (GPA) and B (GPB) are single pass membrane sialoglycoproteins. GPA is the carrier of blood group M and N specificities, while GPB accounts for S and U specificities. GPA and GPB provide the cells with a large mucin-like surface and it has been suggested this provides a barrier to cell fusion, thus minimizing aggregation between red blood cells in the circulation.

Anti-Glycophorin A has been used to characterize erythroid cell development and in the diagnosis of Erythroid Leukemias.

ANTIBODY TYPE *Mouse Monoclonal*
CLONE *GA-R2*
ISOTYPE *IgG2b/K*
CONTROL *Bone Marrow*
LOCALIZATION *Membranous*

CAT. #	PRESENTATION	VOL/QTY
BSB 5582	Tinto Prediluted	3.0 ml
BSB 5583	Tinto Prediluted	7.0 ml
BSB 5584	Tinto Prediluted	15.0 ml
BSB 5585	Concentrated	0.1 ml
BSB 5586	Concentrated	0.5 ml
BSB 5587	Concentrated	1.0 ml
BSB 5588	control slides	5

Glypican-3



IHC of Glypican-3 on an FFPE Ovarian Carcinoma Tissue

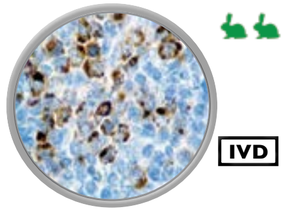
Glypican 3, also known as GPC3, is a human gene. The protein encoded by this gene is a member of the glypican family. Cell surface heparan sulfate proteoglycans are composed of a membrane-associated protein core substituted with a variable number of heparan sulfate chains. Members of the glypican-related integral membrane proteoglycan family (GRIPS) contain a core protein anchored to the cytoplasmic membrane via a glycosyl-phosphatidylinositol linkage. These proteins may play a role in the control of cell division and growth regulation.

GPC3 has been identified to be a useful tumor marker for the diagnosis of Hepatocellular Carcinoma (HCC), Hepatoblastoma, Melanoma, Testicular Germ Cell Tumors, and Wilms Tumor. In patients with HCC, GPC3 was overexpressed in neoplastic liver tissue and elevated in serum but was undetectable in normal liver, benign liver, and the serum of healthy donors. GPC3 expression was also found to be higher in HCC liver tissue than in cirrhotic liver or liver with focal lesions such as dysplastic nodules and areas of hepatic adenoma (HA) with malignant transformation. In the context of Testicular Germ Cell Tumors, GPC3 expression is up-regulated in certain histologic subtypes, specifically Yolk Sac Tumors and Choriocarcinoma. A high level of GPC3 expression has also been found in some types of embryonal tumors, such as Wilms Tumor and Hepatoblastoma.

ANTIBODY TYPE *Mouse Monoclonal*
CLONE *1G12*
ISOTYPE *IgG1*
CONTROL *Hepatocellular Carcinoma*
LOCALIZATION *Cytoplasmic*

CAT. #	PRESENTATION	VOL/QTY
BSB 6240	Tinto Prediluted	3.0 ml
BSB 6241	Tinto Prediluted	7.0 ml
BSB 6242	Tinto Prediluted	15.0 ml
BSB 6243	Concentrated	0.1 ml
BSB 6244	Concentrated	0.5 ml
BSB 6245	Concentrated	1.0 ml
BSB 6246	control slides	5

Granzyme B



IHC of Granzyme B on an FFPE Tonsil Tissue

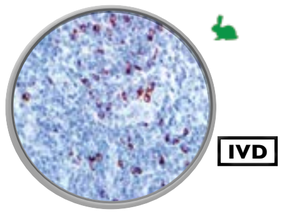
Granzymes are exogenous serine proteases that are released by cytoplasmic granules within cytotoxic T-cells and natural killer cells. Their purpose is to induce apoptosis within virus-infected cells, thus destroying them.

Anti-Granzyme B antibodies have been useful in diagnosing Natural Killer/T-cell Lymphoma, as well as Anaplastic Large Cell Lymphoma. High percentages of cytotoxic T-cells have been shown to be an unfavorable prognostic indicator in Hodgkin's Disease.

ANTIBODY TYPE	*Rabbit Polyclonal*
CLONE	*N/A*
ISOTYPE	*IgG*
CONTROL	*Tonsil, Lymph Node*
LOCALIZATION	*Cytoplasmic (Granular)*

CAT. #	PRESENTATION	VOL/QTY
BSB 5589	Tinto Prediluted	3.0 ml
BSB 5590	Tinto Prediluted	7.0 ml
BSB 5591	Tinto Prediluted	15.0 ml
BSB 5592	Concentrated	0.1 ml
BSB 5593	Concentrated	0.5 ml
BSB 5594	Concentrated	1.0 ml
BSB 5595	control slides	5

Granzyme B, RMab



IHC of Granzyme B on an FFPE Spleen Tissue

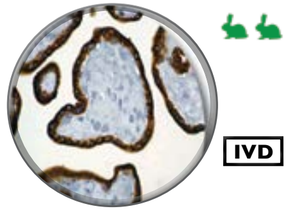
Granzymes are exogenous serine proteases that are released by cytoplasmic granules within cytotoxic T-cells and natural killer cells. Their purpose is to induce apoptosis within virus-infected cells, thus destroying them.

Anti-Granzyme B antibodies have been useful in diagnosing Natural Killer/T-cell Lymphoma, as well as Anaplastic Large Cell Lymphoma. High percentages of cytotoxic T-cells have been shown to be an unfavorable prognostic indicator in Hodgkin's Disease.

ANTIBODY TYPE	*Rabbit Monoclonal*
CLONE	*EP230**
ISOTYPE	*IgG*
CONTROL	*Tonsil, Lymph Node*
LOCALIZATION	*Cytoplasmic (Granular)*

CAT. #	PRESENTATION	VOL/QTY
BSB 2405	Tinto Prediluted	3.0 ml
BSB 2406	Tinto Prediluted	7.0 ml
BSB 2407	Tinto Prediluted	15.0 ml
BSB 2408	Concentrated	0.1 ml
BSB 2409	Concentrated	0.5 ml
BSB 2410	Concentrated	1.0 ml
BSB 2411	control slides	5

hCG



IHC of hCG on an FFPE Placenta Tissue

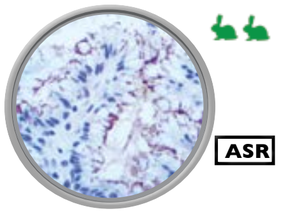
Human chorionic gonadotropin (hCG) is a peptide hormone produced in pregnancy, made by the embryo soon after conception and later by the syncytiotrophoblast. Its role is to prevent the disintegration of the corpus luteum of the ovary and thereby maintain progesterone production that is critical for a pregnancy in humans. hCG may have additional functions; for instance, it is thought to affect the immune tolerance of the pregnancy. Early pregnancy testing generally is based on the detection or measurement of hCG.

hCG antibody detects cells and tumors of trophoblastic origin such as Choriocarcinomas. Large Cell Carcinoma and Adenocarcinoma of the Lung demonstrate hCG positivity in 90% and 60% of cases respectively. 20% of Squamous Cell Lung Carcinomas are positive for hCG. hCG expression by non-trophoblastic tumors may indicate aggressive behavior since it has been observed that hCG may play a role in the host response to a given tumor.

ANTIBODY TYPE	*Rabbit Polyclonal*
CLONE	*N/A*
ISOTYPE	*IgG*
CONTROL	*Placenta*
LOCALIZATION	*Cytoplasmic*

CAT. #	PRESENTATION	VOL/QTY
BSB 5596	Tinto Prediluted	3.0 ml
BSB 5597	Tinto Prediluted	7.0 ml
BSB 5598	Tinto Prediluted	15.0 ml
BSB 5599	Concentrated	0.1 ml
BSB 5600	Concentrated	0.5 ml
BSB 5601	Concentrated	1.0 ml
BSB 5602	control slides	5

Helicobacter Pylori



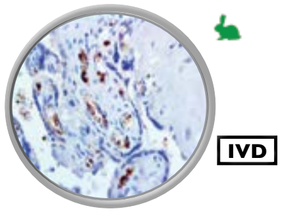
IHC of Helicobacter pylori on an FFPE Infected Stomach Tissue

This antibody reacts with H. pylori on the surface of epithelial cells of pyloric and stomach mucosa.

ANTIBODY TYPE	*Rabbit Polyclonal*
CLONE	*N/A*
ISOTYPE	*IgG*
CONTROL	*Infected Stomach Mucosa*
LOCALIZATION	*Cell Wall*

CAT. #	PRESENTATION	VOL/QTY
BSB 5603	Tinto Prediluted	3.0 ml
BSB 5604	Tinto Prediluted	7.0 ml
BSB 5605	Tinto Prediluted	15.0 ml
BSB 5606	Concentrated	0.1 ml
BSB 5607	Concentrated	0.5 ml
BSB 5608	Concentrated	1.0 ml
BSB 5609	control slides	5

Hemoglobin A, RMab



IHC of Hemoglobin A on an FFPE Placenta Tissue

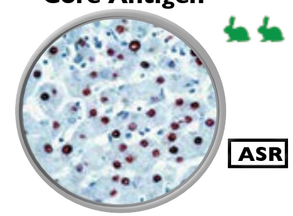
Hemoglobin alpha chain belongs to the globin family and is involved in oxygen transport from the lung to various peripheral tissues. It is a heterotetramer of two alpha chains and two beta chains in adult hemoglobin A (HbA); two alpha chains and two delta chains in adult hemoglobin A2 (HbA2). Hemoglobin alpha chain is expressed in red blood cells, and defects in HBA1/HBA2 can lead to alpha thalassemia, the most common of monogenic diseases.

Hemoglobin alpha chain is a useful marker for erythroid cells. An antibody to Hemoglobin alpha has been used for the identification of erythroid cells in myeloproliferative disease.

ANTIBODY TYPE	*Rabbit Monoclonal*
CLONE	*EP124**
ISOTYPE	*IgG*
CONTROL	*Spleen, Bone Marrow, Placenta*
LOCALIZATION	*Cytoplasmic*

CAT. #	PRESENTATION	VOL/QTY
BSB 6786	Tinto Prediluted	3.0 ml
BSB 6787	Tinto Prediluted	7.0 ml
BSB 6788	Tinto Prediluted	15.0 ml
BSB 6789	Concentrated	0.1 ml
BSB 6790	Concentrated	0.5 ml
BSB 6791	Concentrated	1.0 ml
BSB 6792	control slides	5

Hepatitis B Virus Core Antigen



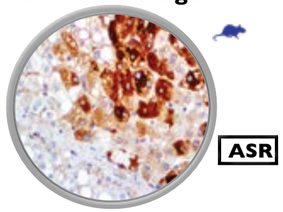
IHC of HBcAg on an FFPE Infected Liver Tissue

Hepatitis B virus is spherical in shape with a diameter of 42 nm. It contains a 27 nm partially double-stranded DNA core enclosed within a lipoprotein coat. The antigenic activity of the nucleocapsid core is designated as Hepatitis B core antigen.

ANTIBODY TYPE	*Rabbit Polyclonal*
CLONE	*N/A*
ISOTYPE	*IgG*
CONTROL	*Infected Liver*
LOCALIZATION	*Nuclear*

CAT. #	PRESENTATION	VOL/QTY
BSB 5610	Tinto Prediluted	3.0 ml
BSB 5611	Tinto Prediluted	7.0 ml
BSB 5612	Tinto Prediluted	15.0 ml
BSB 5613	Concentrated	0.1 ml
BSB 5614	Concentrated	0.5 ml
BSB 5615	Concentrated	1.0 ml
BSB 5616	control slides	5

Hepatitis B Virus Surface Antigen



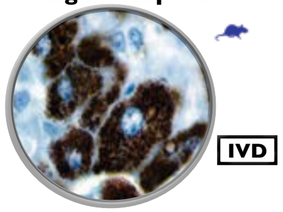
IHC of HBsAg on an FFPE Infected Liver Tissue

Hepatitis B virus is spherical in shape with a diameter of 42 nm. It contains a 27 nm partially double-stranded DNA core enclosed within a lipoprotein coat.

ANTIBODY TYPE	*Mouse Monoclonal*
CLONE	*T9*
ISOTYPE	*IgG1*
CONTROL	*Infected Liver*
LOCALIZATION	*Cytoplasmic*

CAT. #	PRESENTATION	VOL/QTY
BSB 5617	Tinto Prediluted	3.0 ml
BSB 5618	Tinto Prediluted	7.0 ml
BSB 5619	Tinto Prediluted	15.0 ml
BSB 5620	Concentrated	0.1 ml
BSB 5621	Concentrated	0.5 ml
BSB 5622	Concentrated	1.0 ml
BSB 5623	control slides	5

Hepatocyte Specific Antigen/Hep Par 1



IHC of Hepatocyte Specific Antigen on an FFPE Liver Tissue

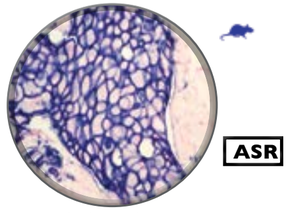
Hepatocyte Specific Antigen (HSA or Hep Par 1) has been demonstrated consistently in the vast majority of Hepatocellular Carcinomas. Studies have shown the utility of HSA in the differential diagnosis of Hepatocellular Carcinoma, Cholangiocarcinoma and Hepatoblastomas.

HSA recognizes both benign and malignant liver derived tissues including such tumors as Hepatoblastoma, Hepatocellular Carcinoma, and Hepatic Adenoma. It recognizes both normal adult and fetal liver tissue. The typical pattern is a granular cytoplasmic staining. This antibody is useful in differentiating Hepatocellular Carcinomas with adenoid features from Adenocarcinomas, either primary in the liver or metastatic lesions to the liver. In recognizing Hepatoblastoma, it is useful in differentiating this entity from other small round cell tumors.

ANTIBODY TYPE	*Mouse Monoclonal*
CLONE	*OCH1E5*
ISOTYPE	*IgG1/K*
CONTROL	*Liver*
LOCALIZATION	*Cytoplasmic*

CAT. #	PRESENTATION	VOL/QTY
BSB 5624	Tinto Prediluted	3.0 ml
BSB 5625	Tinto Prediluted	7.0 ml
BSB 5626	Tinto Prediluted	15.0 ml
BSB 5627	Concentrated	0.1 ml
BSB 5628	Concentrated	0.5 ml
BSB 5629	Concentrated	1.0 ml
BSB 5630	control slides	5

HER-2 neu, MMab



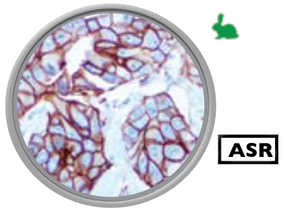
IHC of HER-2 neu on an FFPE Breast Carcinoma Tissue

HER-2 neu (also known as c-erbB-2) is a member of the epidermal growth factor receptor (EGFR) family. It is a cell membrane surface-bound tyrosine kinase and is normally involved in the signal transduction pathways leading to cell growth and differentiation.

ANTIBODY TYPE	*Mouse Monoclonal*
CLONE	*HER-24*
ISOTYPE	*IgG1*
CONTROL	*Breast Carcinoma*
LOCALIZATION	*Membranous*

CAT. #	PRESENTATION	VOL/QTY
BSB 5631	Tinto Prediluted	3.0 ml
BSB 5632	Tinto Prediluted	7.0 ml
BSB 5633	Tinto Prediluted	15.0 ml
BSB 5634	Concentrated	0.1 ml
BSB 5635	Concentrated	0.5 ml
BSB 5636	Concentrated	1.0 ml
BSB 5637	control slides	5

HER-2 neu, RMab



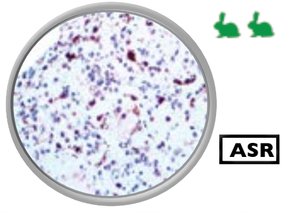
IHC of HER-2 neu on an FFPE Breast Carcinoma Tissue

HER-2 neu (also known as c-erbB-2) is a member of the epidermal growth factor receptor (EGFR) family and is notable for its role in the pathogenesis of breast cancer and as a target of treatment. It is a cell membrane surface-bound tyrosine kinase and is normally involved in the signal transduction pathways leading to cell growth and differentiation. HER-2 neu is a proto-oncogene located at the long arm of human chromosome 17(17q11.2-q12).

ANTIBODY TYPE	*Rabbit Monoclonal*
CLONE	*RBT-HER2*
ISOTYPE	*IgG*
CONTROL	*Breast Carcinoma*
LOCALIZATION	*Membranous*

CAT. #	PRESENTATION	VOL/QTY
BSB 2035	Tinto Prediluted	3.0 ml
BSB 2036	Tinto Prediluted	7.0 ml
BSB 2037	Tinto Prediluted	15.0 ml
BSB 2038	Concentrated	0.1 ml
BSB 2039	Concentrated	0.5 ml
BSB 2040	Concentrated	1.0 ml
BSB 2041	control slides	5

Herpes Simplex Virus I



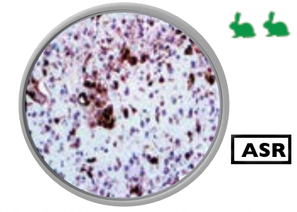
IHC of HSV I on an FFPE Infected Tissue

Herpes Simplex Virus I usually infects the non-genital mucosal surfaces, and may also affect skin or internal organs such as brain, lung, liver, adrenal gland, or GI tract of immunocompromised individuals.

ANTIBODY TYPE	*Rabbit Polyclonal*
CLONE	*N/A*
ISOTYPE	*IgG*
CONTROL	*Infected Tissue*
LOCALIZATION	*Nuclear, Cytoplasmic*

CAT. #	PRESENTATION	VOL/QTY
BSB 2426	Tinto Prediluted	3.0 ml
BSB 2427	Tinto Prediluted	7.0 ml
BSB 2428	Tinto Prediluted	15.0 ml
BSB 2429	Concentrated	0.1 ml
BSB 2430	Concentrated	0.5 ml
BSB 2431	Concentrated	1.0 ml
BSB 2432	control slides	5

Herpes Simplex Virus II



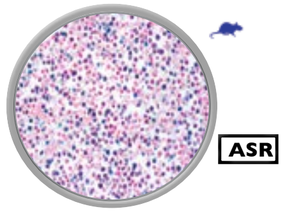
IHC of HSV II on an FFPE Infected Tissue

Herpes Simplex Virus II typically involves the genitalia, and may also affect skin or internal organs such as brain, lung, liver, adrenal gland, or GI tract of immunocompromised individuals.

ANTIBODY TYPE	*Rabbit Polyclonal*
CLONE	*N/A*
ISOTYPE	*IgG*
CONTROL	*Infected Tissue*
LOCALIZATION	*Nuclear, Cytoplasmic*

CAT. #	PRESENTATION	VOL/QTY
BSB 2335	Tinto Prediluted	3.0 ml
BSB 2336	Tinto Prediluted	7.0 ml
BSB 2337	Tinto Prediluted	15.0 ml
BSB 2338	Concentrated	0.1 ml
BSB 2339	Concentrated	0.5 ml
BSB 2340	Concentrated	1.0 ml
BSB 2341	control slides	5

HHV-8



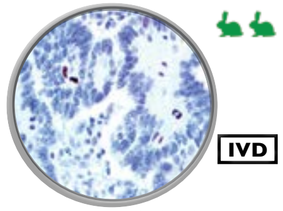
IHC of HHV-8 on an FFPE Pleura Tissue

Kaposi's Sarcoma-associated herpes virus is the eighth human herpes virus; its formal name according to the International Committee on Taxonomy of Viruses is HHV-8. Anti-HHV-8 labels the latent nuclear antigen protein via immunohistochemistry.

ANTIBODY TYPE	*Mouse Monoclonal*
CLONE	*13B10*
ISOTYPE	*IgG1*
CONTROL	*Kaposi's Sarcoma*
LOCALIZATION	*Nuclear*

CAT. #	PRESENTATION	VOL/QTY
BSB 5645	Tinto Prediluted	3.0 ml
BSB 5646	Tinto Prediluted	7.0 ml
BSB 5647	Tinto Prediluted	15.0 ml
BSB 5648	Concentrated	0.1 ml
BSB 5649	Concentrated	0.5 ml
BSB 5650	Concentrated	1.0 ml
BSB 5651	control slides	5

Histone H3 Phospho



IHC of Histone H3 Phospho on an FFPE Breast Carcinoma Tissue

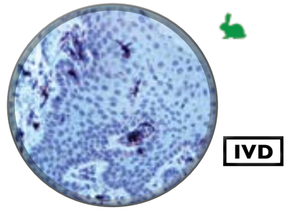
Phosphohistone-H3 is one of the five main histone proteins involved in the structure of chromatin in eukaryotic cells. Featuring a main globular domain and a long N-terminal tail, H3 is involved with the structure of the nucelosomes of the "beads on a string" structure. In mammalian cells, phosphohistone H3 is negligible during interphase but reaches a maximum for chromatin condensation during mitosis.

Phosphohistone-H3 can serve as a mitotic marker to separate mitotic figures from apoptotic bodies and karyorrhectic debris, which may be a very useful tool in diagnosis of tumor grades, especially in CNS, skin, Gyn., soft tissue, and GIST.

ANTIBODY TYPE	*Rabbit Polyclonal*
CLONE	*N/A*
ISOTYPE	*IgG*
CONTROL	*Tonsil*
LOCALIZATION	*Nuclear*

CAT. #	PRESENTATION	VOL/QTY
BSB 6821	Tinto Prediluted	3.0 ml
BSB 6822	Tinto Prediluted	7.0 ml
BSB 6823	Tinto Prediluted	15.0 ml
BSB 6824	Concentrated	0.1 ml
BSB 6825	Concentrated	0.5 ml
BSB 6826	Concentrated	1.0 ml
BSB 6827	control slides	5

HLA-DR Alpha Chain, RMab



IHC of HLA-DR alpha-chain on an FFPE Skin Tissue

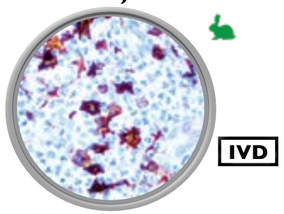
HLA class II histocompatibility antigen, DR alpha chain (HLA-DR alpha chain) is a polymorphic cell surface glycoprotein that is crucial for the cellular interaction in the immune system. Class II molecules have limited tissue distribution and are predominantly expressed on B lymphocytes and macrophage; these class II molecules present peptides derived from extracellular proteins to T cells.

HLA-DR alpha chain antibody labels B cells, dendritic cells, monocytes and macrophages. It is also reported to react with tumor cells in many types of cancers including breast, liver, lung and ovary cancer.

ANTIBODY TYPE	*Rabbit Monoclonal*
CLONE	*EP96**
ISOTYPE	*IgG*
CONTROL	*Tonsil, Spleen*
LOCALIZATION	*Cytoplasmic*

CAT. #	PRESENTATION	VOL/QTY
BSB 6793	Tinto Prediluted	3.0 ml
BSB 6794	Tinto Prediluted	7.0 ml
BSB 6795	Tinto Prediluted	15.0 ml
BSB 6796	Concentrated	0.1 ml
BSB 6797	Concentrated	0.5 ml
BSB 6798	Concentrated	1.0 ml
BSB 6799	control slides	5

HLA-DRB1 Beta Chain, RMab



IHC of HLA-DRB1 beta chain on an FFPE Tonsil Tissue

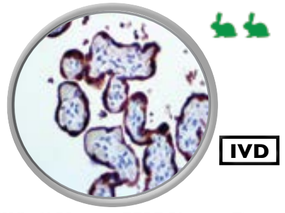
HLA class II histocompatibility antigen, DRB1-9 beta chain belongs to the HLA class II beta chain paralogues. The class II molecule is a heterodimer consisting of an alpha (DRA) and a beta chain (DRB), both anchored in the membrane. It plays a central role in the immune system by presenting peptides derived from extracellular proteins. HLA-DRB1 is expressed mainly on antigen-presenting cells, such as B lymphocytes, monocytes and dendritic cells, but can also be detected on activated T lymphocytes and activated granulocytes.

In abnormal tissues, HLA-DRB1 has been found in different types of Acute Lymphoblastic Leukemias and Acute Myeloid Leukemias. Additionally, HDLADR was also found in some nonhematopoietic tumors, including carcinomas of the colon and breast.

ANTIBODY TYPE	*Rabbit Monoclonal*
CLONE	*EP191**
ISOTYPE	*IgG*
CONTROL	*Tonsil, Spleen*
LOCALIZATION	*Cytoplasmic*

CAT. #	PRESENTATION	VOL/QTY
BSB 2433	Tinto Prediluted	3.0 ml
BSB 2434	Tinto Prediluted	7.0 ml
BSB 2435	Tinto Prediluted	15.0 ml
BSB 2436	Concentrated	0.1 ml
BSB 2437	Concentrated	0.5 ml
BSB 2438	Concentrated	1.0 ml
BSB 2439	control slides	5

hPL



IHC of hPL on an FFPE Placenta Tissue

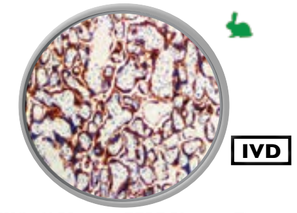
Human placenta lactogen (hPL), also known as human chorionic somatomammotropin (HCS), is a polypeptide placental hormone. Its structure and function are similar to that of human growth hormone. It modifies the metabolic state of the mother during pregnancy to facilitate the energy supply of the fetus. It is first detectable in the maternal serum in the fifth week of gestation and reaches a plateau by the thirty-fourth week.

hPL is expressed in the syncytiotrophoblastic cells of choriocarcinoma. A rare variant of trophoblastic tumor has been reported in the testis with resemblance to uterine placental site trophoblastic tumor. It consisted purely of intermediate trophoblasts, which was diffusely positive for hPL and focally for B-hCG.

ANTIBODY TYPE	*Rabbit Polyclonal*
CLONE	*N/A*
ISOTYPE	*IgG*
CONTROL	*Placenta*
LOCALIZATION	*Cytoplasmic*

CAT. #	PRESENTATION	VOL/QTY
BSB 6800	Tinto Prediluted	3.0 ml
BSB 6801	Tinto Prediluted	7.0 ml
BSB 6802	Tinto Prediluted	15.0 ml
BSB 6803	Concentrated	0.1 ml
BSB 6804	Concentrated	0.5 ml
BSB 6805	Concentrated	1.0 ml
BSB 6806	control slides	5

hPL, RMab



IHC of hPL on an FFPE Placenta Tissue

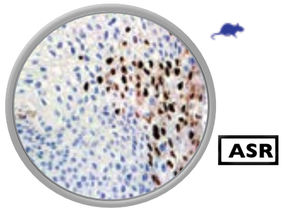
Human placenta lactogen (hPL), also known as human chorionic somatomammotropin (HCS), is a polypeptide placental hormone. Its structure and function are similar to that of human growth hormone. It modifies the metabolic state of the mother during pregnancy to facilitate the energy supply of the fetus. It is first detectable in the maternal serum in the fifth week of gestation and reaches a plateau by the thirty-fourth week.

hPL is expressed in the syncytiotrophoblastic cells of choriocarcinoma. A rare variant of trophoblastic tumor has been reported in the testis with resemblance to uterine placental site trophoblastic tumor. It consisted purely of intermediate trophoblasts, which was diffusely positive for hPL and focally for B-hCG.

ANTIBODY TYPE	*Rabbit Monoclonal*
CLONE	*EP241**
ISOTYPE	*IgG*
CONTROL	*Placenta*
LOCALIZATION	*Cytoplasmic*

CAT. #	PRESENTATION	VOL/QTY
BSB 2412	Tinto Prediluted	3.0 ml
BSB 2413	Tinto Prediluted	7.0 ml
BSB 2414	Tinto Prediluted	15.0 ml
BSB 2415	Concentrated	0.1 ml
BSB 2416	Concentrated	0.5 ml
BSB 2417	Concentrated	1.0 ml
BSB 2418	control slides	5

HPV



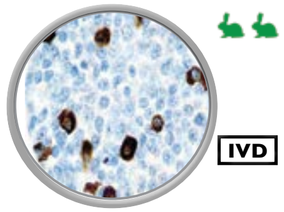
IHC of HPV on an FFPE LSIL of the Cervix Tissue

Papillomaviruses are a diverse group of DNA-based viruses. More than 100 different human papillomavirus (HPV) types have been characterized. Some HPV types cause benign skin warts, or papillomas, for which the virus family is named. HPVs associ. Anti-human papillomavirus, clone SB24 reacts with an epitope of a major capsid protein of HPV, which is broadly expressed among the different HPV subtypes.

ANTIBODY TYPE *Mouse Monoclonal*
CLONE *SB24*
ISOTYPE *IgG1/K*
CONTROL *HPV Infected Tissue*
LOCALIZATION *Nuclear*

CAT. #	PRESENTATION	VOL/QTY
BSB 5652	Tinto Prediluted	3.0 ml
BSB 5653	Tinto Prediluted	7.0 ml
BSB 5654	Tinto Prediluted	15.0 ml
BSB 5655	Concentrated	0.1 ml
BSB 5656	Concentrated	0.5 ml
BSB 5657	Concentrated	1.0 ml
BSB 5658	control slides	5

IgA



IHC of IgA on an FFPE Tonsil Tissue

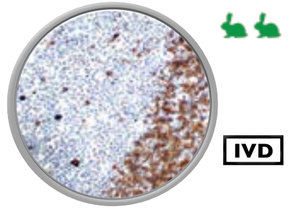
Immunoglobulin A (IgA) is the main immunoglobulin in mucous secretions, including tears, saliva, and colostrum, as well as respiratory, intestinal, prostatic, and vaginal secretions. It is also found in small amounts in blood. Because it is resistant to degradation by enzymes, secretory IgA provides protection against microbes proliferating in body secretions, especially those of the digestive and respiratory tracts.

IgA antibody reacts with surface immunoglobulin IgA alpha chains. It is extremely useful when identifying Acute Leukemias, IgA Myelomas, Plasmacytomas, and B-cell lineage derived Hodgkin's Lymphomas. However, due to the restricted expression of heavy and light chains in these diseases, demonstration of B-cell Lymphomas is possible with clonal gene-rearrangement studies.

ANTIBODY TYPE *Rabbit Polyclonal*
CLONE *N/A*
ISOTYPE *IgG*
CONTROL *Tonsil, Lymph Node*
LOCALIZATION *Cytoplasmic*

CAT. #	PRESENTATION	VOL/QTY
BSB 5659	Tinto Prediluted	3.0 ml
BSB 5660	Tinto Prediluted	7.0 ml
BSB 5661	Tinto Prediluted	15.0 ml
BSB 5662	Concentrated	0.1 ml
BSB 5663	Concentrated	0.5 ml
BSB 5664	Concentrated	1.0 ml
BSB 5665	control slides	5

IgD



IHC of IgD on an FFPE Tonsil Tissue

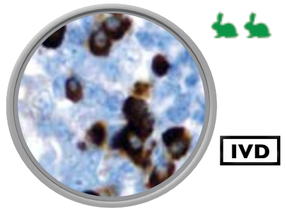
IgD makes up about 1% of proteins in the plasma membranes of immature B-lymphocytes (coexpressed with IgM) and is also found in serum in very small amounts. It is monomeric and incorporates the alpha-heavy chain in its structure. IgD's function is currently unknown, as mice lacking IgD seem to retain normal immune responses (implying redundancy if not lack of function), and IgD ceases to be expressed in activated B-lymphocytes. It may function as a regulatory antigen receptor.

IgD antibody reacts with surface immunoglobulin IgD delta chains. This antibody is useful when identifying Leukemias, Plasmacytomas, and B-cell lineage derived from Lymphomas, specifically Marginal Zone Lymphoma.

ANTIBODY TYPE *Rabbit Polyclonal*
CLONE *N/A*
ISOTYPE *IgG*
CONTROL *Tonsil, Lymph Node*
LOCALIZATION *Cytoplasmic*

CAT. #	PRESENTATION	VOL/QTY
BSB 5666	Tinto Prediluted	3.0 ml
BSB 5667	Tinto Prediluted	7.0 ml
BSB 5668	Tinto Prediluted	15.0 ml
BSB 5669	Concentrated	0.1 ml
BSB 5670	Concentrated	0.5 ml
BSB 5671	Concentrated	1.0 ml
BSB 5672	control slides	5

IgG



IHC of IgG on an FFPE Tonsil Tissue

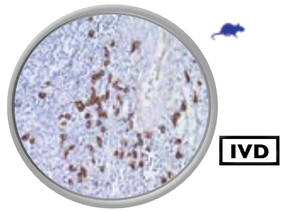
IgG is a monomeric immunoglobulin, comprised of two heavy chains and two light chains. This is the most abundant immunoglobulin and is approximately equally distributed in blood and tissue liquids, constituting 75% of serum immunoglobulins in humans. This is the only isotype that can pass through the placenta and bind to many kinds of pathogens. IgG protects the body against them by complement activation (classic pathway), opsonization for phagocytosis and neutralization of their toxins. There are 4 subclasses: IgG1 (66%), IgG2 (23%), IgG3 (7%) and IgG4 (4%).

IgG antibody reacts with surface immunoglobulin IgG gamma chains. This antibody is useful when identifying Leukemias, Plasmacytomas, and B-cell lineage derived Hodgkin's Lymphomas. Due to the restricted expression of heavy and light chains in these diseases, demonstration of B-cell Lymphomas is possible with clonal gene-rearrangement studies.

ANTIBODY TYPE *Rabbit Polyclonal*
CLONE *N/A*
ISOTYPE *IgG*
CONTROL *Tonsil, Lymph Node*
LOCALIZATION *Cytoplasmic*

CAT. #	PRESENTATION	VOL/QTY
BSB 5673	Tinto Prediluted	3.0 ml
BSB 5674	Tinto Prediluted	7.0 ml
BSB 5675	Tinto Prediluted	15.0 ml
BSB 5676	Concentrated	0.1 ml
BSB 5677	Concentrated	0.5 ml
BSB 5678	Concentrated	1.0 ml
BSB 5679	control slides	5

IgG4



IHC of IgG4 on an FFPE Tonsil Tissue

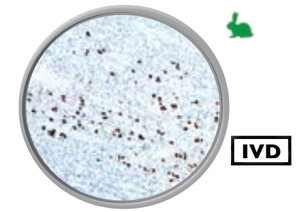
IgG4-related sclerosing disease has been recognized as a systemic disease entity characterized by an elevated serum IgG4 level, sclerosing fibrosis and diffuse lymphoplasmacytic infiltration with the presence of many IgG4-positive plasma cells. As these patients tend to respond favorably to steroid treatment, it is important to recognize this entity and differentiate it from such mimics as lymphoma.

Clinical manifestations are apparent in the pancreas, bile duct, gallbladder, lacrimal gland, salivary gland, retroperitoneum, kidney, lung, breast, thyroid, and prostate. Immunohistochemical analyses in the case of IgG4-related sclerosing disease not only exhibits significantly more IgG4-positive plasma cells in affected tissues but also significantly higher IgG4/ IgG ratios (typically > 30%).

ANTIBODY TYPE *Mouse Monoclonal*
CLONE *MRQ-44*
ISOTYPE *IgG1/K*
CONTROL *Tonsil, Spleen*
LOCALIZATION *Cytoplasmic*

CAT. #	PRESENTATION	VOL/QTY
BSB 6807	Tinto Prediluted	3.0 ml
BSB 6808	Tinto Prediluted	7.0 ml
BSB 6809	Tinto Prediluted	15.0 ml
BSB 6810	Concentrated	0.1 ml
BSB 6811	Concentrated	0.5 ml
BSB 6812	Concentrated	1.0 ml
BSB 6813	control slides	5

IgG4, RMab



IHC of IgG4 on an FFPE Tonsil Tissue

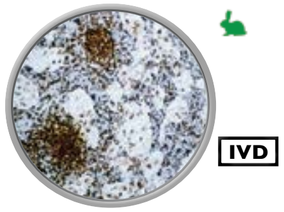
IgG4-related sclerosing disease has been recognized as a systemic disease entity characterized by an elevated serum IgG4 level, sclerosing fibrosis and diffuse lymphoplasmacytic infiltration with the presence of many IgG4-positive plasma cells. As these patients tend to respond favorably to steroid treatment, it is important to recognize this entity and differentiate it from such mimics as lymphoma.

Clinical manifestations are apparent in the pancreas, bile duct, gallbladder, lacrimal gland, salivary gland, retroperitoneum, kidney, lung, breast, thyroid, and prostate. Immunohistochemical analyses in the case of IgG4-related sclerosing disease not only exhibits significantly more IgG4-positive plasma cells in affected tissues but also significantly higher IgG4/ IgG ratios (typically > 30%).

ANTIBODY TYPE *Rabbit Monoclonal*
CLONE *EP138**
ISOTYPE *IgG*
CONTROL *Tonsil, Spleen*
LOCALIZATION *Cytoplasmic*

CAT. #	PRESENTATION	VOL/QTY
BSB 6814	Tinto Prediluted	3.0 ml
BSB 6815	Tinto Prediluted	7.0 ml
BSB 6816	Tinto Prediluted	15.0 ml
BSB 6817	Concentrated	0.1 ml
BSB 6818	Concentrated	0.5 ml
BSB 6819	Concentrated	1.0 ml
BSB 6820	control slides	5

IgM



IHC of IgM on an FFPE Axilar Lymph Node with Metastatic Breast Carcinoma

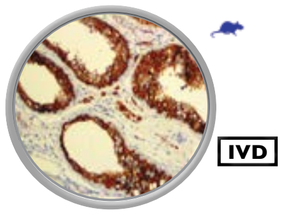
IgM forms polymers where multiple immunoglobulins are covalently linked together with disulfide bonds, normally as a pentamer or occasionally as a hexamer. It has a large molecular mass of approximately 900 kDa (in its pentamer form). In germline cells, the gene segment encoding the constant region of the heavy chain is positioned first among other constant region gene segments. For this reason, IgM is the first immunoglobulin expressed by mature B-cells.

IgM antibody reacts with surface immunoglobulin IgM mu chains. IgM is one of the predominant surface immunoglobulins on B-lymphocytes, and is useful when identifying Leukemias, Plasmacytomas, and B-cell lineage derived Hodgkin's Lymphomas. Due to the restricted expression of heavy and light chains in these diseases, demonstration of B-cell Lymphomas is possible with clonal gene-rearrangement studies.

ANTIBODY TYPE *Rabbit Polyclonal*
CLONE *N/A*
ISOTYPE *IgG*
CONTROL *Tonsil, Lymph Node*
LOCALIZATION *Cytoplasmic*

CAT. #	PRESENTATION	VOL/QTY
BSB 5680	Tinto Prediluted	3.0 ml
BSB 5681	Tinto Prediluted	7.0 ml
BSB 5682	Tinto Prediluted	15.0 ml
BSB 5683	Concentrated	0.1 ml
BSB 5684	Concentrated	0.5 ml
BSB 5685	Concentrated	1.0 ml
BSB 5686	control slides	5

Inhibin Alpha



IHC of Inhibin Alpha on an FFPE Testicle Tissue

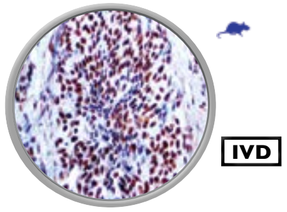
Inhibins are peptide hormones produced by the granulosa cells in female follicles and by Sertoli cells in the male seminiferous tubules. They are selectively expressed by cells of sex-cord stromal derivation, and inhibit the secretion of follitropin by the pituitary gland. Inhibin contains an alpha and beta subunit linked by disulfide bonds. Two forms of inhibin differ in their beta subunits (A or B), while their alpha subunits are identical. Inhibin belongs to the transforming growth factor-beta (TGF-beta) family.

Anti-Inhibin Alpha has demonstrated utility in differentiation between Adrenal Cortical Tumors and Renal Cell Carcinoma. Sex-Cord Stromal Tumors of the Ovary as well as Trophoblastic Tumors also demonstrate cytoplasmic positivity with this antibody.

ANTIBODY TYPE *Mouse Monoclonal*
CLONE *R1*
ISOTYPE *IgG2a*
CONTROL *Adrenal Cortex, Placenta, Testis, Corpus Luteum*
LOCALIZATION *Cytoplasmic*

CAT. #	PRESENTATION	VOL/QTY
BSB 5687	Tinto Prediluted	3.0 ml
BSB 5688	Tinto Prediluted	7.0 ml
BSB 5689	Tinto Prediluted	15.0 ml
BSB 5690	Concentrated	0.1 ml
BSB 5691	Concentrated	0.5 ml
BSB 5692	Concentrated	1.0 ml
BSB 5693	control slides	5

INI-1



IHC of INI-1 on an FFPE Ewing's Sarcoma Tissue

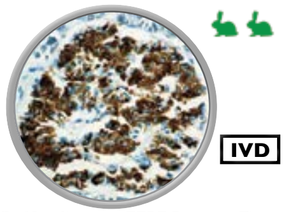
The INI-1 gene, which encodes a functionally uncharacterized protein component of the hSWI/SNF chromatin remodeling complex, is often mutated or deleted in malignant rhabdoid tumor (MRT). Two isoforms of INI-1, that differ by the variable inclusion of amino acids, potentially are produced by differential RNA splicing.

The morphology of MRTs can present challenges in differential diagnosis. The overall survival of MRTs relative to its potential mimics (medulloblastoma, supratenorial primitive neuroectodermal tumors (sPNETs)) is quite low, and thus differentiation from these other tumors is desirable. Lack of nuclear labeling by anti-INI-1 is characteristic of MRT. The majority of medulloblastomas and sPNETs are labeled by anti-INI-1. MRTs also originate from the kidney and soft tissues.

ANTIBODY TYPE *Mouse Monoclonal*
CLONE *25*
ISOTYPE *IgG2a*
CONTROL *Brain, Endothelial Cells, Astrocytoma*
LOCALIZATION *Nuclear*

CAT. #	PRESENTATION	VOL/QTY
BSB 6828	Tinto Prediluted	3.0 ml
BSB 6829	Tinto Prediluted	7.0 ml
BSB 6830	Tinto Prediluted	15.0 ml
BSB 6831	Concentrated	0.1 ml
BSB 6832	Concentrated	0.5 ml
BSB 6833	Concentrated	1.0 ml
BSB 6834	control slides	5

Insulin



IHC of Insulin on an FFPE Pancreas Tissue

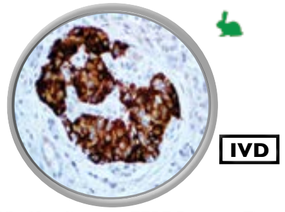
Insulin is produced in the beta cells of the Islets of Langerhans in the pancreas. It is a polypeptide hormone that regulates carbohydrate metabolism. Apart from being the primary agent in carbohydrate homeostasis, insulin has effects on fat metabolism and changes the liver's ability in storing or releasing glucose and processing blood lipids, and in other tissues such as fat and muscle. The amount of insulin in circulation has extremely widespread effects throughout the body.

The presence of insulin in the cytoplasm of Islet Tumors is the most reliable indication of functional Insulinomas. Defective insulin storage occurs in Insulinomas; therefore, many sections of the tumor should be stained with both insulin and C-peptide.

ANTIBODY TYPE *Rabbit Polyclonal*
CLONE *N/A*
ISOTYPE *IgG*
CONTROL *Pancreas*
LOCALIZATION *Cytoplasmic*

CAT. #	PRESENTATION	VOL/QTY
BSB 5694	Tinto Prediluted	3.0 ml
BSB 5695	Tinto Prediluted	7.0 ml
BSB 5696	Tinto Prediluted	15.0 ml
BSB 5697	Concentrated	0.1 ml
BSB 5698	Concentrated	0.5 ml
BSB 5699	Concentrated	1.0 ml
BSB 5700	control slides	5

Insulin, RMab



IHC of Insulin on an FFPE Pancreas Tissue

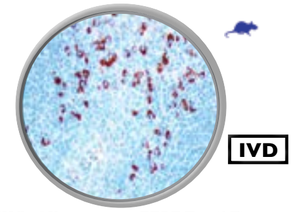
Insulin is produced in the beta cells of the Islets of Langerhans in the pancreas. It is a polypeptide hormone that regulates carbohydrate metabolism. Apart from being the primary agent in carbohydrate homeostasis, insulin has effects on fat metabolism and changes the liver's ability in storing or releasing glucose and processing blood lipids, and in other tissues such as fat and muscle. The amount of insulin in circulation has extremely widespread effects throughout the body.

The presence of insulin in the cytoplasm of Islet Tumors is the most reliable indication of functional Insulinomas. Defective insulin storage occurs in Insulinomas; therefore, many sections of the tumor should be stained with both insulin and C-peptide.

ANTIBODY TYPE *Rabbit Monoclonal*
CLONE *EP125**
ISOTYPE *IgG*
CONTROL *Pancreas*
LOCALIZATION *Cytoplasmic*

CAT. #	PRESENTATION	VOL/QTY
BSB 6835	Tinto Prediluted	3.0 ml
BSB 6836	Tinto Prediluted	7.0 ml
BSB 6837	Tinto Prediluted	15.0 ml
BSB 6838	Concentrated	0.1 ml
BSB 6839	Concentrated	0.5 ml
BSB 6840	Concentrated	1.0 ml
BSB 6841	control slides	5

Kappa Light Chains



IHC of Kappa on an FFPE Tonsil Tissue

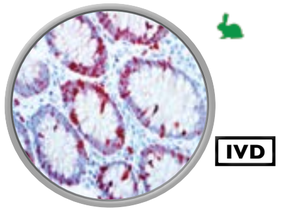
Kappa detects surface immunoglobulin on normal and neoplastic B-cells. In paraffin-embedded tissue, Kappa exhibits strong staining of kappa-positive plasma cells and cells that have absorbed exogenous immunoglobulin.

When studying B-cell neoplasms, the determination of light-chain ratios remains the centerpiece. This is sound reasoning because most B-cell Lymphomas express either kappa or lambda light chains, whereas reactive proliferations display a mixture of kappa and lambda-positive cells. If only a single light-chain type is detected, a lymphoproliferative disorder is very likely. Monoclonality is determined by a kappa-lambda ratio greater than or equal to 3:1, a lambda-kappa ratio greater than or equal to 2:1, or a monoclonal population of 75% or more of the total population.

ANTIBODY TYPE *Mouse Monoclonal*
CLONE *Kap-56*
ISOTYPE *IgG1/K*
CONTROL *Tonsil, Lymph Node*
LOCALIZATION *Cytoplasmic*

CAT. #	PRESENTATION	VOL/QTY
BSB 5701	Tinto Prediluted	3.0 ml
BSB 5702	Tinto Prediluted	7.0 ml
BSB 5703	Tinto Prediluted	15.0 ml
BSB 5704	Concentrated	0.1 ml
BSB 5705	Concentrated	0.5 ml
BSB 5706	Concentrated	1.0 ml
BSB 5707	control slides	5

Ki-67, RMab



IHC of Ki67 on an FFPE Colon Tissue

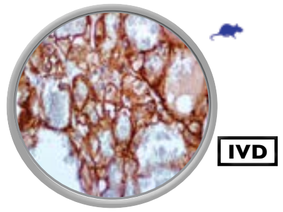
The Ki-67 protein is a cellular marker for proliferation. It is strictly associated with cell proliferation. During the interphase, the Ki-67 antigen can be exclusively detected within the cell nucleus, whereas in mitosis most of the protein is relocated to the surface of the chromosomes. Ki-67 protein is present during all active phases of the cell cycle (G1, S, G2, and mitosis), but is absent from resting cells (G0).

Ki-67 is an excellent marker to determine the growth fraction of a given cell population. The fraction of Ki-67-positive tumor cells (the Ki-67 labeling index) is often correlated with the clinical course of cancer. The best-studied examples in this context are Carcinomas of the Prostate and the Breast.

ANTIBODY TYPE	*Rabbit Monoclonal*
CLONE	*EP5**
ISOTYPE	*IgG*
CONTROL	*Breast Carcinoma, Astrocytoma, Colon Carcinoma*
LOCALIZATION	*Nuclear*

CAT. #	PRESENTATION	VOL/QTY
BSB 5708	Tinto Prediluted	3.0 ml
BSB 5709	Tinto Prediluted	7.0 ml
BSB 5710	Tinto Prediluted	15.0 ml
BSB 5711	Concentrated	0.1 ml
BSB 5712	Concentrated	0.5 ml
BSB 5713	Concentrated	1.0 ml
BSB 5714	control slides	5

Ksp-Cadherin



IHC of Ksp-Cadherin on an FFPE Chromophobe RCC Tissue

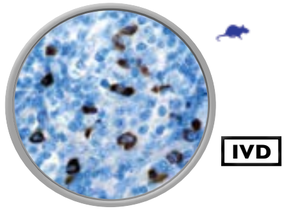
Ksp-Cadherin (Kidney-specific Cadherin) is a novel, kidney-specific member of the Cadherin family of cell-adhesion molecules. Within the kidney, Ksp-Cadherin is found exclusively in the basolateral membrane of renal tubular epithelial cells and collecting duct cells, and not in glomeruli, renal interstitial cells, or blood vessels. Different Cadherins, including E-Cadherin, Cadherin-6, and N-Cadherin, have been investigated in Renal Cell Cancers, demonstrating possible correlations of tumor differentiation and the presence of lymph node metastasis with loss of Cadherins.

Ksp-Cadherin has been used to distinguish Chromophobe Renal-Cell Carcinoma from Oncocytoma. Studies have found a membranous pattern of staining in 96% of 30 Chromophobe Carcinomas, and in only 6% of 31 Oncocytomas, leading to conclude that this is a useful antibody in differentiating these two lesions. On the other hand, another study found Ksp-Cadherin positivity in 100% of 13 chromophobe RCCs, and 95% of 20 Oncocytomas.

ANTIBODY TYPE	*Mouse Monoclonal*
CLONE	*MRQ-33*
ISOTYPE	*IgG1*
CONTROL	*Kidney, Chromophobe Renal Cell Carcinoma*
LOCALIZATION	*Membranous, Cytoplasmic*

CAT. #	PRESENTATION	VOL/QTY
BSB 6282	Tinto Prediluted	3.0 ml
BSB 6283	Tinto Prediluted	7.0 ml
BSB 6284	Tinto Prediluted	15.0 ml
BSB 6285	Concentrated	0.1 ml
BSB 6286	Concentrated	0.5 ml
BSB 6287	Concentrated	1.0 ml
BSB 6288	control slides	5

Lambda



IHC of Lambda on an FFPE Tonsil Tissue

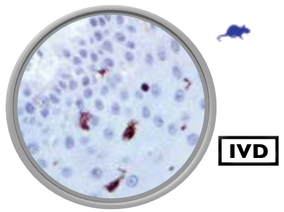
Lambda detects surface immunoglobulin on normal and neoplastic B-cells. Lambda staining is seen in B-cell follicles of human lymphoid tissue.

When studying B-cell neoplasms, the determination of light chain ratios remains the centerpiece. This is sound reasoning because most B-cell Lymphomas express either kappa or lambda light chains, whereas reactive proliferations display a mixture of kappa and lambda-positive cells. If only a single light-chain type is detected, a lymphoproliferative disorder is very likely. Monoclonality is determined by a kappa-lambda ratio greater than or equal to 3:1, a lambda-kappa ratio greater than or equal to 2:1, or a monoclonal population of 75% or more of the total population.

ANTIBODY TYPE	*Mouse Monoclonal*
CLONE	*Lamb14*
ISOTYPE	*IgG2a*
CONTROL	*Tonsil, Lymph Node*
LOCALIZATION	*Cytoplasmic*

CAT. #	PRESENTATION	VOL/QTY
BSB 5715	Tinto Prediluted	3.0 ml
BSB 5716	Tinto Prediluted	7.0 ml
BSB 5717	Tinto Prediluted	15.0 ml
BSB 5718	Concentrated	0.1 ml
BSB 5719	Concentrated	0.5 ml
BSB 5720	Concentrated	1.0 ml
BSB 5721	control slides	5

Langerin



IHC of Langerin on an FFPE Skin Tissue

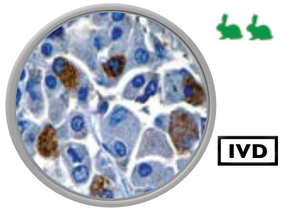
Langerin is a type II transmembrane cell surface receptor produced by Langerhans Cells, which are immature dendritic cells of the epidermis and mucosa. Epidermal LCs possess strong immunohistochemistry capacity and play a central role in the initiation and regulation of immune responses. Langerin is localized in the Birbeck granules, organelles present in the cytoplasm of Langerhans cells and consisting of superimposed and zippered membranes. It is a C-type lectin with mannose binding specificity, and it has been proposed that mannose binding by this protein leads to internalization of antigen into Birbeck granules and provides access to a nonclassical antigen-processing pathway.

Human spleen, lymph node, thymus, liver, lung, and heart express langerin protein. Langerin protein expression has utility in differentiating Langerhans cell histiocytosis from other non-Langerhans cell histiocytic proliferations.

ANTIBODY TYPE	*Mouse Monoclonal*
CLONE	*12D6*
ISOTYPE	*IgG2b/K*
CONTROL	*Skin, Histocytosis*
LOCALIZATION	*Cytoplasmic*

CAT. #	PRESENTATION	VOL/QTY
BSB 6842	Tinto Prediluted	3.0 ml
BSB 6843	Tinto Prediluted	7.0 ml
BSB 6844	Tinto Prediluted	15.0 ml
BSB 6845	Concentrated	0.1 ml
BSB 6846	Concentrated	0.5 ml
BSB 6847	Concentrated	1.0 ml
BSB 6848	control slides	5

LH



IHC of LH on an FFPE Pituitary Tissue

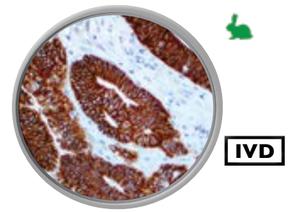
Luteinizing hormone (LH) is a hormone synthesized and secreted by gonadotropes in the anterior lobe of the pituitary gland. In concert with the other pituitary gonadotropin follicle-stimulating hormone (FSH), it is necessary for proper reproductive function. In the female, an acute rise of LH levels triggers ovulation. In the male, where LH has also been called Interstitial Cell-Stimulating Hormone (ICSH), it stimulates Leydig cell production of testosterone.

LH is a useful marker in classification of Pituitary Tumors and the study of pituitary disease. LH antibody reacts with LH-producing cells (gonadotrophs).

ANTIBODY TYPE	*Rabbit Polyclonal*
CLONE	*N/A*
ISOTYPE	*IgG*
CONTROL	*Normal Pituitary*
LOCALIZATION	*Cytoplasmic*

CAT. #	PRESENTATION	VOL/QTY
BSB 5722	Tinto Prediluted	3.0 ml
BSB 5723	Tinto Prediluted	7.0 ml
BSB 5724	Tinto Prediluted	15.0 ml
BSB 5725	Concentrated	0.1 ml
BSB 5726	Concentrated	0.5 ml
BSB 5727	Concentrated	1.0 ml
BSB 5728	control slides	5

LI-Cadherin, RMab



IHC of LI-Cadherin on an FFPE Colon Carcinoma Tissue

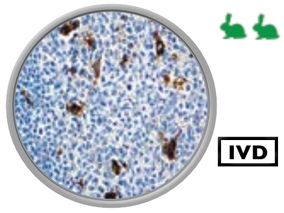
LI-Cadherin, also known as Cadherin-17, is part of the cadherin superfamily and is a calcium-dependent, membrane-associated glycoprotein. Cadherins are responsible for mediating cell-cell adhesion and are important for the structural integrity of epithelia. LI-Cadherin consists of an extracellular region containing 7 cadherin domains, and a transmembrane region but lacking the conserved cytoplasmic domain. It is a component of the gastrointestinal tract and pancreatic ducts, acting as an intestinal proton-dependent peptide transporter in the first step in oral absorption of many medically important peptide-based drugs. It may play a role in the morphological organization of liver and intestine.

In normal tissues, the LI-Cadherin antibody labels epithelial cells in the gastrointestinal tract and pancreatic duct, but not in kidney, liver and other tissues. In tumors, LI-Cadherin is expressed on adenocarcinoma of the digestive system, including liver cancer. It is a sensitive marker for the identification of gastric intestinal metaplasia and well differentiated adenocarcinomas.

ANTIBODY TYPE	*Rabbit Monoclonal*
CLONE	*EP86**
ISOTYPE	*IgG*
CONTROL	*Colon Carcinoma*
LOCALIZATION	*Cytoplasmic*

CAT. #	PRESENTATION	VOL/QTY
BSB 6849	Tinto Prediluted	3.0 ml
BSB 6850	Tinto Prediluted	7.0 ml
BSB 6851	Tinto Prediluted	15.0 ml
BSB 6852	Concentrated	0.1 ml
BSB 6853	Concentrated	0.5 ml
BSB 6854	Concentrated	1.0 ml
BSB 6855	control slides	5

Lysozyme



IHC of Lysozyme on an FFPE Tonsil Tissue

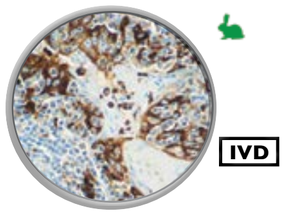
Lysozyme is a 14.4 kDa enzyme, commonly referred to as the "body's own antibiotic" since it kills bacteria. Lysozyme is an enzyme that destroys bacterial cell walls by hydrolyzing the polysaccharide component of the cell wall. It is abundantly present in a number of secretions, including tears. This protein is present in cytoplasmic granules of the polymorphonuclear neutrophils (PMN) and released through mucosal secretions such as tears and saliva. They can also be found in high concentration in egg white.

Lysozyme stains myeloid cells, histiocytes, granulocytes, macrophages, and monocytes in human tonsil, colon and skin. It is an important marker that may demonstrate the myeloid or monocytic nature of Acute Leukemia. The restrictive nature of Lysozyme antibody staining suggests that Lysozyme may be synthesized predominantly in reactive histiocytes rather than in resting, unstimulated phagocytes. It has not been determined whether Lysozyme stains any other cell or tissue type. Lysozyme may aid in the identification of histiocytic neoplasias and large lymphocytes, as well as classifying lymphoproliferative disorders.

ANTIBODY TYPE *Rabbit Polyclonal*
CLONE *N/A*
ISOTYPE *IgG*
CONTROL *Tonsil, Lymph Node*
LOCALIZATION *Cytoplasmic*

CAT. #	PRESENTATION	VOL/QTY
BSB 5729	Tinto Prediluted	3.0 ml
BSB 5730	Tinto Prediluted	7.0 ml
BSB 5731	Tinto Prediluted	15.0 ml
BSB 5732	Concentrated	0.1 ml
BSB 5733	Concentrated	0.5 ml
BSB 5734	Concentrated	1.0 ml
BSB 5735	control slides	5

Lysozyme, RMab



IHC of Lysozyme on an FFPE Tonsil Tissue

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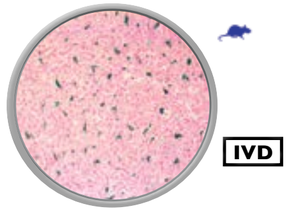
ANTIBODY TYPE *Rabbit Monoclonal*
CLONE *EP134**
ISOTYPE *IgG*
CONTROL *Tonsil, Lymph Node*
LOCALIZATION *Cytoplasmic*

CAT. #	PRESENTATION	VOL/QTY
BSB 6856	Tinto Prediluted	3.0 ml
BSB 6857	Tinto Prediluted	7.0 ml
BSB 6858	Tinto Prediluted	15.0 ml
BSB 6859	Concentrated	0.1 ml
BSB 6860	Concentrated	0.5 ml
BSB 6861	Concentrated	1.0 ml
BSB 6862	control slides	5

Macrophage/HAM-56



IHC of Macrophage on an FFPE Liver Tissue

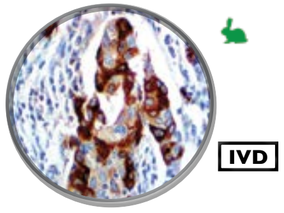
Macrophages comprise many forms of mononuclear phagocytes found in tissues that derive from hematopoietic stem cells in the bone marrow. Among the functions of macrophages are nonspecific phagocytosis and pinocytosis, killing of ingested microorganisms, and digestion and presentation of antigens to T and B-lymphocytes. Macrophages work to secrete a large number of diverse products such as lysozyme and collagenases, several complement components and coagulation factors, some prostaglandins and leukotrienes, and many regulatory molecules (Interferon, Interleukin 1).

Macrophage HAM-56 reacts with tingible macrophages (found in the germinal centers of lymph nodes), interdigitating macrophages of lymph nodes and tissue macrophages, (e.g., Kupffer cells of the liver and alveolar macrophages of the lung). This antibody also stains a subpopulation of endothelial cells, most prominently those of the capillaries and smaller blood vessels. HAM-56 reacts with monocytes, but is unreactive with B and T-lymphocytes.

ANTIBODY TYPE *Mouse Monoclonal*
CLONE *HAM-56*
ISOTYPE *IgM/K*
CONTROL *Tonsil, Lymph Node*
LOCALIZATION *Cytoplasmic*

CAT. #	PRESENTATION	VOL/QTY
BSB 5736	Tinto Prediluted	3.0 ml
BSB 5737	Tinto Prediluted	7.0 ml
BSB 5738	Tinto Prediluted	15.0 ml
BSB 5739	Concentrated	0.1 ml
BSB 5740	Concentrated	0.5 ml
BSB 5741	Concentrated	1.0 ml
BSB 5742	control slides	5

Mammaglobin, RMab



IHC of Mammaglobin on an FFPE Breast Tissue

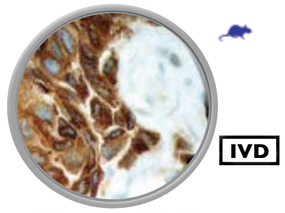
Mammaglobin is a gene that encodes a 10 kDa glycoprotein. In humans, expression of the gene is limited to the adult mammary gland. A correlation between increased expression of the gene and Breast Cancer has been reported. Mammaglobin mRNA is present in high levels in human Breast Cancer cell lines and primary Breast Cancers. High levels of mRNA have been detected in normal human sweat glands as well, but are absent in Sweat Gland Tumors.

Anti-Mammaglobin (31A5) has been shown to be effective in detecting up to 85% of Breast Carcinomas using immunohistochemical techniques. Studies investigating the detection of mRNA by RT PCR from circulating carcinoma cells in the peripheral blood of Breast Cancer patients have shown that mammaglobin is a highly-specific marker and correlates with several prognostic factors, such as lymph node involvement.

ANTIBODY TYPE *Rabbit Monoclonal*
CLONE *EP249**
ISOTYPE *IgG*
CONTROL *Breast Carcinoma*
LOCALIZATION *Cytoplasmic*

CAT. #	PRESENTATION	VOL/QTY
BSB 5743	Tinto Prediluted	3.0 ml
BSB 5744	Tinto Prediluted	7.0 ml
BSB 5745	Tinto Prediluted	15.0 ml
BSB 5746	Concentrated	0.1 ml
BSB 5747	Concentrated	0.5 ml
BSB 5748	Concentrated	1.0 ml
BSB 5749	control slides	5

MART-1/Melan-A, M2-7C10



IHC of MART-1 M2-7C on an FFPE Melanoma Tissue

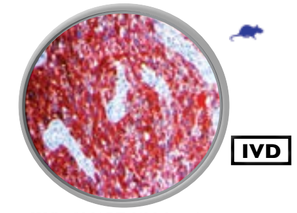
MART-1 M2-7C is a putative 18 kDa transmembrane protein consisting of 118 amino acids. It has a single transmembrane domain. MART-1/ Melan-A is a protein antigen found on melanocytes. Antibodies against this antigen are used to recognize cells of melanocytic differentiation, useful for the diagnosis of Melanoma. The same name is used to refer to the gene which codes for this antigen.

The MART-1 M2-7C antigen is specific for the melanocyte lineage found in normal skin, retina, and melanocytes, but not in other normal tissues. It is thus useful as a marker for Melanocytic Tumors, with the caveat that it is normally found in benign nevi as well. This antibody is very useful in establishing the diagnosis of Metastatic Melanomas.

ANTIBODY TYPE *Mouse Monoclonal*
CLONE *M2-7C10*
ISOTYPE *IgG2b/K*
CONTROL *Normal Skin, Melanoma*
LOCALIZATION *Cytoplasmic*

CAT. #	PRESENTATION	VOL/QTY
BSB 5750	Tinto Prediluted	3.0 ml
BSB 5751	Tinto Prediluted	7.0 ml
BSB 5752	Tinto Prediluted	15.0 ml
BSB 5753	Concentrated	0.1 ml
BSB 5754	Concentrated	0.5 ml
BSB 5755	Concentrated	1.0 ml
BSB 5756	control slides	5

MART-1/Melan-A, A103



IHC of MART-1/Melan-A on an FFPE Melanoma Tissue

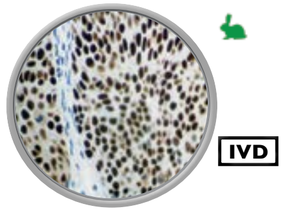
MART-1/Melan-A is a putative 18 kDa transmembrane protein consisting of 118 amino acids. It has a single transmembrane domain. MART-1/ Melan-A is a protein antigen found on melanocytes. Antibodies against this antigen are used to recognize cells of melanocytic differentiation, useful for the diagnosis of Melanoma. The same name is used to refer to the gene which codes for this antigen.

The MART-1/Melan-A antigen is specific for the melanocyte lineage found in normal skin, retina, and melanocytes, but not in other normal tissues. It is thus useful as a marker for Melanocytic Tumors, with the caveat that it is normally found in benign nevi as well. This antibody is very useful in establishing the diagnosis of Metastatic Melanomas.

ANTIBODY TYPE *Mouse Monoclonal*
CLONE *A103*
ISOTYPE *IgG1*
CONTROL *Normal Skin, Melanoma*
LOCALIZATION *Cytoplasmic*

CAT. #	PRESENTATION	VOL/QTY
BSB 6870	Tinto Prediluted	3.0 ml
BSB 6871	Tinto Prediluted	7.0 ml
BSB 6872	Tinto Prediluted	15.0 ml
BSB 6873	Concentrated	0.1 ml
BSB 6874	Concentrated	0.5 ml
BSB 6875	Concentrated	1.0 ml
BSB 6876	control slides	5

MCM-2, RMab



IHC of MCM-2 on an FFPE HSIL of the Cervix

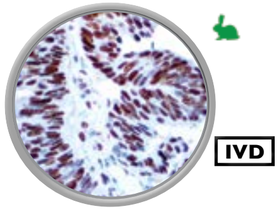
MCM-2 (mini-chromosome maintenance 2) is a human gene. The protein encoded by this gene is one of the highly conserved mini-chromosome maintenance proteins (MCM) that is involved in the initiation of eukaryotic genome replication. The hexameric protein complex formed by MCM proteins is a key component of the pre-replication complex, and may be involved in the formation of replication forks and in the recruitment of other DNA replication-related proteins. This protein forms a complex with MCM-4, 6, and 7, and has been shown to regulate the helicase activity of the complex. This protein is phosphorylated, and thus regulated by protein kinases CDC2 and CDC7.

MCM-2 is essential for eukaryotic DNA replication and drives the formation of pre-replicative complexes, which is the key first step during the G1 phase. Therefore, altered MCM-2 expression may be a hallmark of cell-cycle deregulation, which could be the most essential mechanism in the development and progression of human cancers. MCM2 has been identified by DNA microarray and transcriptional profiling as a gene that is over-expressed in Cervical Carcinomas. This protein is over-expressed in Cervical Dysplasia as a result of HPV infection. The over-expression of MCM-2 provides the link between oncogenic HPV infection and the molecular event of Cervical Dysplasia.

ANTIBODY TYPE	*Rabbit Monoclonal*
CLONE	*RBT-MCM2*
ISOTYPE	*IgG*
CONTROL	*HSIL, Cervical, Breast Cancer*
LOCALIZATION	*Nuclear*

CAT. #	PRESENTATION	VOL/QTY
BSB 6331	Tinto Prediluted	3.0 ml
BSB 6332	Tinto Prediluted	7.0 ml
BSB 6333	Tinto Prediluted	15.0 ml
BSB 6334	Concentrated	0.1 ml
BSB 6335	Concentrated	0.5 ml
BSB 6336	Concentrated	1.0 ml
BSB 6337	control slides	5

MCM-3, RMab



IHC of MCM3 on an FFPE Colon Carcinoma Tissue

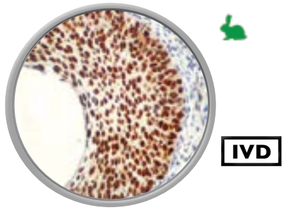
MCM3 is one of the highly conserved mini-chromosome maintenance proteins (MCM) that are involved in the initiation of eukaryotic genome replication. The hexameric protein complex formed by MCM proteins is a key component of the pre-replication complex and may be involved in the formation of replication forks and in the recruitment of other DNA replication proteins. MCM3 is a subunit of the protein complex that consists of MCM2-7. It has been shown to interact directly with MCM5/CDC46. This protein also interacts with, and thus is acetylated by MCM3AP, a chromatin-associated acetyltransferase. The acetylation of this protein inhibits the initiation of DNA replication and cell cycle progrsession.

Increased expression of MCM3 has been demonstrated in various tumors by immunohistochemistry and is used as a marker for tumor progression.

ANTIBODY TYPE	*Rabbit Monoclonal*
CLONE	*EP202**
ISOTYPE	*IgG*
CONTROL	*Colon Carcinoma*
LOCALIZATION	*Nuclear*

CAT. #	PRESENTATION	VOL/QTY
BSB 6884	Tinto Prediluted	3.0 ml
BSB 6885	Tinto Prediluted	7.0 ml
BSB 6886	Tinto Prediluted	15.0 ml
BSB 6887	Concentrated	0.1 ml
BSB 6888	Concentrated	0.5 ml
BSB 6889	Concentrated	1.0 ml
BSB 6890	control slides	5

MCM-5, RMab



IHC of MCM5 on an FFPE Cervical Cancer Tissue

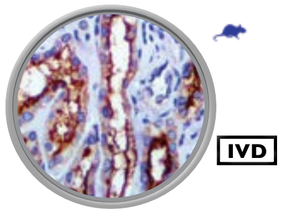
DNA replication licensing factor MCM5 is a member of the MCM family and is responsible for regulating DNA replication. It functions as a replicative helicase, the molecular motor that both unwinds duplex DNA and powers fork progression during DNA replication. MCM5 is upregulated in the transition from the G0 to the G1/S phase of the cell cycle and may actively participate in cell cycle regulation.

MCM5 may be a useful marker for skin cancer, colon cancer, and is of prognostic value in colon cancer and ovarian cancer.

ANTIBODY TYPE	*Rabbit Monoclonal*
CLONE	*RBT-MCM5*
ISOTYPE	*IgG*
CONTROL	*HSIL Cervical Carcinoma, Colon Carcinoma*
LOCALIZATION	*Nuclear*

CAT. #	PRESENTATION	VOL/QTY
BSB 6891	Tinto Prediluted	3.0 ml
BSB 6892	Tinto Prediluted	7.0 ml
BSB 6893	Tinto Prediluted	15.0 ml
BSB 6894	Concentrated	0.1 ml
BSB 6895	Concentrated	0.5 ml
BSB 6896	Concentrated	1.0 ml
BSB 6897	control slides	5

MDR-1



IHC of MDR-1 on an FFPE Kidney Tissue

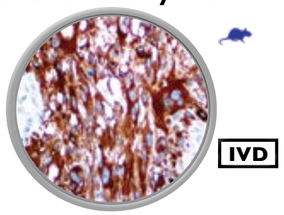
P-glycoprotein 1, also known as multidrug resistance protein 1 (MDR1) or ATP-binding cassette sub-family B member 1 (ABCB1) or cluster of differentiation 243 (CD243), functions as an energy-dependent efflux pump for structurally diverse agents ranging from ions to peptides. It is implicated in the development of the multiple drug resistance phenomenon observed in human cancer cells following prolonged chemotherapy. The classic form of multiple drug resistance is associated with an increase in the MDR protein, but not in all cases. MDR-1 is an apical transmembrane protein that is an integral part of the blood-brain barrier and functions as a drug transport pump that transports a variety of drugs from the brain back into the blood.

MDR-1 is extensively distributed and expressed in the intestinal epithelium, hepatocytes, renal proximal tubular cells, adrenal gland and capillary endothelial cells comprising the blood-brain and blood-testis barrier.

ANTIBODY TYPE	*Mouse Monoclonal*
CLONE	*JSB-1*
ISOTYPE	*IgG1*
CONTROL	*Skeletal Muscle, Kidney*
LOCALIZATION	*Cytoplasmic*

CAT. #	PRESENTATION	VOL/QTY
BSB 6898	Tinto Prediluted	3.0 ml
BSB 6899	Tinto Prediluted	7.0 ml
BSB 6900	Tinto Prediluted	15.0 ml
BSB 6901	Concentrated	0.1 ml
BSB 6902	Concentrated	0.5 ml
BSB 6903	Concentrated	1.0 ml
BSB 6904	control slides	5

Melanoma Cocktail: HMB-45 & MART-1 & Tyrosinase



IHC of Mart-1 & Tyrosinase on an FFPE Melanoma Tissue

HMB-45 reacts against an antigen present in immature melanosomes, cutaneous, melanocytes, prenatal and infantile retinal pigment epithelium and melanoma cells. This antibody is very useful to identify Malignant Melanoma.

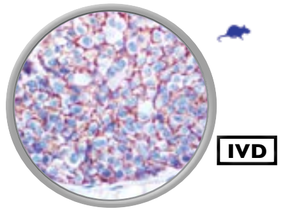
MART-1/Melan-A is a protein antigen found on melanocytes. Antibodies against this antigen are used to recognize cells of melanocytic differentiation, useful for the diagnosis of Melanoma. The same name is used to refer to the gene which codes for this antigen. Tyrosinase is a copper-containing enzyme present in plant and animal tissues that catalyzes the production of melanin and other pigments from tyrosine by oxidation.

The MART-1/Melan-A antigen is specific for the melanocyte lineage found in normal skin, retina, and melanocytes, but not in other normal tissues. It is thus useful as a marker for Melanocytic Tumors, with the caveat that it is normally found in benign nevi as well. Anti-Tyrosinase has been found to be quite specific for melanotic lesions such as Malignant Melanoma and Melanotic Neurofibroma. Essentially no carcinomas express this marker. Melanoma cocktail HMB-45, Mart-1 and Tyrosinase are ideally suited to detect melanomas and melanocytic lesions and may prove to be a valuable marker for melanoma metastasis in sentinel lymph nodes.

ANTIBODY TYPE	*Mouse Monoclonal*
CLONE	*HMB-45, A103 & Ty/G5*
ISOTYPE	*IgG1/K, IgG1 & IgG2a*
CONTROL	*Skin, Melanoma*
LOCALIZATION	*Cytoplasmic*

CAT. #	PRESENTATION	VOL/QTY
BSB 6877	Tinto Prediluted	3.0 ml
BSB 6878	Tinto Prediluted	7.0 ml
BSB 6879	Tinto Prediluted	15.0 ml
BSB 6880	Concentrated	0.1 ml
BSB 6881	Concentrated	0.5 ml
BSB 6882	Concentrated	1.0 ml
BSB 6883	control slides	5

Melanoma/KBA.62



IHC of Melanoma/KBA.62 on an FFPE Melanoma Tissue

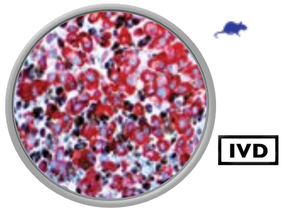
KBA.62 is a mouse monoclonal antibody that reacts against an antigen present in melanocytic tumors such as Melanomas. The antibody was generated to an extract of Melanoma. It reacted positively against Melanocytic Tumors but not other tumors, thus demonstrating specificity and sensitivity. Moreover, this antibody reacts positively against junctional nevus cells but not intradermal nevi, and against fetal melanocytes but not normal adult melanocytes.

This antibody is very useful to identify Malignant Melanoma. Metastatic Amelanotic Melanoma can often be confused with a variety of poorly differentiated Carcinomas, Large Cell Lymphomas, Sarcomas, Spindle Cell Carcinomas and various types of mesenchymal neoplasms. A keratin-negative, vimentin-rich neoplasm that immunoreacts with antibody to S-100 protein and with this melanoma antibody, is, with rare exception, a Melanoma.

ANTIBODY TYPE	*Mouse Monoclonal*
CLONE	*KBA.62*
ISOTYPE	*IgG1*
CONTROL	*Melanoma*
LOCALIZATION	*Membranous*

CAT. #	PRESENTATION	VOL/QTY
BSB 6905	Tinto Prediluted	3.0 ml
BSB 6906	Tinto Prediluted	7.0 ml
BSB 6907	Tinto Prediluted	15.0 ml
BSB 6908	Concentrated	0.1 ml
BSB 6909	Concentrated	0.5 ml
BSB 6910	Concentrated	1.0 ml
BSB 6911	control slides	5

Melanoma/PNL2



IHC of Melanoma/PNL2 on an FFPE Melanoma Tissue

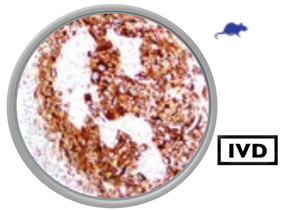
PNL2 is a mouse monoclonal antibody that reacts against an antigen present in melanocytic tumors such as Melanomas. The antibody was generated to an extract of Melanoma. It reacted positively against Melanocytic Tumors but not other tumors, thus demonstrating specificity and sensitivity. Moreover, this antibody reacts positively against junctional nevus cells but not intradermal nevi, and against fetal melanocytes but not normal adult melanocytes.

This antibody is very useful to identify Malignant Melanoma. Metastatic Amelanotic Melanoma can often be confused with a variety of poorly differentiated Carcinomas, Large Cell Lymphomas, Sarcomas, Spindle Cell Carcinomas and various types of mesenchymal neoplasms. A keratin-negative, vimentin-rich neoplasm that immunoreacts with antibody to S-100 protein and with this melanoma antibody, is, with rare exception, a Melanoma.

ANTIBODY TYPE	*Mouse Monoclonal*
CLONE	*PNL2*
ISOTYPE	*IgG1*
CONTROL	*Melanoma*
LOCALIZATION	*Cytoplasmic*

CAT. #	PRESENTATION	VOL/QTY
BSB 6912	Tinto Prediluted	3.0 ml
BSB 6913	Tinto Prediluted	7.0 ml
BSB 6914	Tinto Prediluted	15.0 ml
BSB 6915	Concentrated	0.1 ml
BSB 6916	Concentrated	0.5 ml
BSB 6917	Concentrated	1.0 ml
BSB 6918	control slides	5

Melanosome HMB-45



IHC of Melanosome HMB-45 on an FFPE Malignant Melanoma Tissue

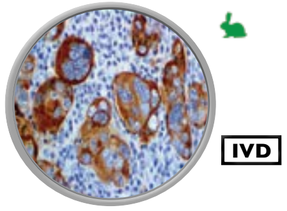
HMB-45 reacts against an antigen present in immature melanosomes, cutaneous, melanocytes, prenatal and infantile retinal pigment epithelium and melanoma cells. This antibody was generated to an extract of Melanoma. It reacted positively against Melanocytic Tumors but not other tumors, thus demonstrating specificity and sensitivity. Moreover, this antibody reacts positively against junctional nevus cells but not intradermal nevi, and against fetal melanocytes but not normal adult melanocytes.

This antibody is very useful to identify Malignant Melanoma. Metastatic Amelanotic Melanoma can often be confused with a variety of poorly differentiated Carcinomas, Large Cell Lymphomas, Sarcomas, Spindle Cell Carcinomas and various types of mesenchymal neoplasms. A keratin-negative, vimentin-rich neoplasm that immunoreacts with antibody to S-100 protein and with this melanoma antibody, is, with rare exception, a Melanoma.

ANTIBODY TYPE	*Mouse Monoclonal*
CLONE	*HMB-45*
ISOTYPE	*IgG1/K*
CONTROL	*Melanoma*
LOCALIZATION	*Cytoplasmic*

CAT. #	PRESENTATION	VOL/QTY
BSB 5757	Tinto Prediluted	3.0 ml
BSB 5758	Tinto Prediluted	7.0 ml
BSB 5759	Tinto Prediluted	15.0 ml
BSB 5760	Concentrated	0.1 ml
BSB 5761	Concentrated	0.5 ml
BSB 5762	Concentrated	1.0 ml
BSB 5763	control slides	5

Mesothelin, RMab



IHC of Mesothelin on an FFPE Ovarian Tissue

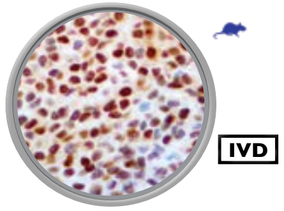
Mesothelin was first identified by its reactivity with monoclonal antibody K1. The mesothelin gene encodes a precursor protein that is processed to yield mesothelin, which is attached to the cell membrane by a glycophosphatidylinositol linkage and a 31-KDa shed fragment named megakaryocyte-potentiating factor (MPF). Its biological function is not known, but recent studies have shown that mesothelin forms a strong and specific complex with MUC16, which has been suggested to be the basis of ovarian cancer metastasis.

Mesothelin is present on normal mesothelial cells lining the pleura, peritoneum, and pericardium. In tumors, overexpression of Mesothelin has been observed in mesotheliomas, and other tumors including ovarian, pancreatic carcinomas, and cholangiocarcinoma.

ANTIBODY TYPE	*Rabbit Monoclonal*
CLONE	*EP140**
ISOTYPE	*IgG*
CONTROL	*Mesothelioma, Ovarian Cancer*
LOCALIZATION	*Cytoplasmic, Membranous*

CAT. #	PRESENTATION	VOL/QTY
BSB 6919	Tinto Prediluted	3.0 ml
BSB 6920	Tinto Prediluted	7.0 ml
BSB 6921	Tinto Prediluted	15.0 ml
BSB 6922	Concentrated	0.1 ml
BSB 6923	Concentrated	0.5 ml
BSB 6924	Concentrated	1.0 ml
BSB 6925	control slides	5

MiTF



IHC of MiTF on an FFPE Melanoma Tissue

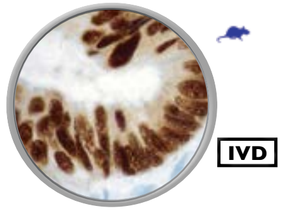
Microphthalmia-associated Transcription Factor (MiTF) is a basic helix-loop-helix leucine zipper transcription factor involved in melanocyte and osteoclast development. Mutations in MiTF cause auditory pigmentary syndromes, such as Waardenburg Syndrome Type II, Type IIa and Tietz Syndrome in humans. There are two known isoforms of MiTF differing by 66 amino acids at the NH2 terminus. Shorter forms are expressed in melanocytes and run as two bands at 52 kDa and 56 kDa, while the longer Mi form runs as a cluster of bands at 60-70 kDa in osteoclasts and in B16 Melonoma cells (but not other Melanoma cell lines), as well as mast cells and heart cells. MiTF plays a critical role in the differentiation of various cell types such as neural crest-derived melanocytes, mast cells, osteoclasts and optic cup-derived retinal pigment epithelium.

This antibody recognizes serine phosphorylated and non-phosphorylated melanocytic isoforms of microphthalmia. It is useful in identifying Malignant Melanoma, and distinguishing mast cell lesions from lesions of myeloid derivation. A relatively rare class of tumors known as PEComas (tumors showing perivascular epithelioid cell differentiation) express MiTF in a high percentage of cases (~90%).

ANTIBODY TYPE	*Mouse Monoclonal*
CLONE	*C5/D5*
ISOTYPE	*IgG1/K*
CONTROL	*Melanoma*
LOCALIZATION	*Nuclear*

CAT. #	PRESENTATION	VOL/QTY
BSB 6247	Tinto Prediluted	3.0 ml
BSB 6248	Tinto Prediluted	7.0 ml
BSB 6249	Tinto Prediluted	15.0 ml
BSB 6250	Concentrated	0.1 ml
BSB 6251	Concentrated	0.5 ml
BSB 6252	Concentrated	1.0 ml
BSB 6253	control slides	5

MLH1



IHC of MLH1 on an FFPE Colon Carcinoma Tissue

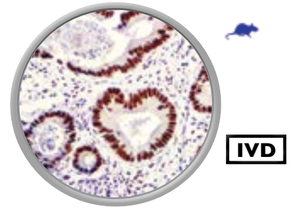
MLH1 is a mismatch repair gene of around 87 kDa, commonly associated with Hereditary Non-Polyposis Colorectal Cancer (HNPCC). This gene was identified as a locus frequently mutated in HNPCC. It is a human homolog of the E. coli DNA mismatch repair gene mutL, consistent with the characteristic alterations in microsatellite sequences (RER+ phenotype) found in HNPCC. Alternatively spliced transcript variants encoding different isoforms have been described, but their full-length natures have not been determined.

In a high proportion of patients with microsatellite instability (MSI-H), the MLH1 protein is typically deficient. This protein deficiency is linked to the autosomal dominant condition of Hereditary Non-Polyposis Colon Cancer. The anti-MLH1 antibody is useful in screening patients and families for this condition. Colon cancers that are microsatellite-unstable have a better prognosis than their microsatellite stable counterparts.

ANTIBODY TYPE	*Mouse Monoclonal*
CLONE	*G168-728*
ISOTYPE	*IgG2a*
CONTROL	*Colon Mucosa, Colon Carcinoma*
LOCALIZATION	*Nuclear*

CAT. #	PRESENTATION	VOL/QTY
BSB 5764	Tinto Prediluted	3.0 ml
BSB 5765	Tinto Prediluted	7.0 ml
BSB 5766	Tinto Prediluted	15.0 ml
BSB 5767	Concentrated	0.1 ml
BSB 5768	Concentrated	0.5 ml
BSB 5769	Concentrated	1.0 ml
BSB 5770	control slides	5

MSH2



IHC of MSH2 on an FFPE Colon Carcinoma Tissue

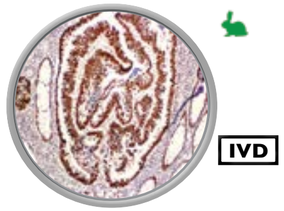
MSH2 is a mismatch repair gene commonly associated with Hereditary Non-Polyposis Colorectal Cancer (HNPCC). This gene was identified as a locus frequently mutated in HNPCC. When cloned, it is a human homolog of the E. coli DNA mismatch repair gene mutS, consistent with the characteristic alterations in microsatellite sequences (RER+ phenotype) found in HNPCC.

MSH2 is abnormally deficient in a high proportion of patients with microsatellite instability (MSI-H). This finding is associated with the autosomal dominant condition found in Hereditary Non-Polyposis Colon Cancer. This anti-MSH2 antibody (along with MLH1 antibody) is useful in screening patients and families for this rare condition. Colon cancers that are microsatellite unstable have a better prognosis than their microsatellite stable counterparts.

ANTIBODY TYPE	*Mouse Monoclonal*
CLONE	*G219-1129*
ISOTYPE	*IgG1*
CONTROL	*Colon Mucosa, Colon Carcinoma*
LOCALIZATION	*Nuclear*

CAT. #	PRESENTATION	VOL/QTY
BSB 5771	Tinto Prediluted	3.0 ml
BSB 5772	Tinto Prediluted	7.0 ml
BSB 5773	Tinto Prediluted	15.0 ml
BSB 5774	Concentrated	0.1 ml
BSB 5775	Concentrated	0.5 ml
BSB 5776	Concentrated	1.0 ml
BSB 5777	control slides	5

MSH2, RMab



IHC of MSH2 on an FFPE Colon Carcinoma Tissue

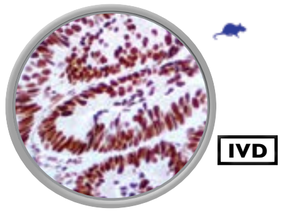
MSH2, also known as mutS protein homolog 2, is a mismatch repair gene commonly associated with Hereditary Non-Polyposis Colorectal Cancer (HNPCC). This gene was identified as a locus frequently mutated in HNPCC. When cloned, it is a human homolog of the E. coli DNA mismatch repair gene mutS, consistent with the characteristic alterations in microsatellite sequences (RER+ phenotype) found in HNPCC.

MSH2 is abnormally deficient in a high proportion of patients with microsatellite instability (MSI-H). This finding is associated with the autosomal dominant condition found in Hereditary Non-Polyposis Colon Cancer. This anti-MSH2 antibody (along with MLH1 antibody) is useful in screening patients and families for this rare condition. Colon cancers that are microsatellite unstable have a better prognosis than their microsatellite stable counterparts.

ANTIBODY TYPE	*Rabbit Monoclonal*
CLONE	*RBT-MSH2*
ISOTYPE	*IgG*
CONTROL	*Colon Mucosa, Colon Carcinoma*
LOCALIZATION	*Nuclear*

CAT. #	PRESENTATION	VOL/QTY
BSB 6926	Tinto Prediluted	3.0 ml
BSB 6927	Tinto Prediluted	7.0 ml
BSB 6928	Tinto Prediluted	15.0 ml
BSB 6929	Concentrated	0.1 ml
BSB 6930	Concentrated	0.5 ml
BSB 6931	Concentrated	1.0 ml
BSB 5777	control slides	5

MSH6



IHC of MSH6 on an FFPE Colon Carcinoma Tissue

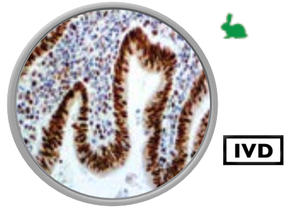
MSH6 is a gene commonly associated with Hereditary Non-Polyposis Colorectal Cancer (HNPCC). HNPCC is an autosomal, dominantly inherited disease associated with marked increase in cancer susceptibility. It is characterized by a familial predisposition to early onset Colorectal Carcinoma and extra-colonic cancers of the gastrointestinal, urological and female reproductive tracts. HNPCC is reported to be the most common form of inherited Colorectal Cancer in the western world. MSH6 is a mismatch repair gene which is deficient in a high proportion of patients with microsatellite instability (MSI-H).

The anti-MSH6 antibody is useful in screening patients and families for HNPCC. Colon cancers that are microsatellite-unstable have a better prognosis than their microsatellite-stable counterparts.

ANTIBODY TYPE	*Mouse Monoclonal*
CLONE	*44*
ISOTYPE	*IgG1*
CONTROL	*Colon Mucosa Colon Carcinoma*
LOCALIZATION	*Nuclear*

CAT. #	PRESENTATION	VOL/QTY
BSB 6142	Tinto Prediluted	3.0 ml
BSB 6143	Tinto Prediluted	7.0 ml
BSB 6144	Tinto Prediluted	15.0 ml
BSB 6145	Concentrated	0.1 ml
BSB 6146	Concentrated	0.5 ml
BSB 6147	Concentrated	1.0 ml
BSB 6148	control slides	5

MSH6, RMab



IHC of MSH6 on an FFPE Colon Carcinoma Tissue

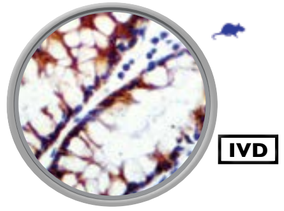
MSH6, also known as mutS homolog 6, is a gene commonly associated with Hereditary Non-Polyposis Colorectal Cancer (HNPCC). HNPCC is an autosomal, dominantly inherited disease associated with marked increase in cancer susceptibility. It is characterized by a familial predisposition to early onset Colorectal Carcinoma and extra-colonic cancers of the gastrointestinal, urological and female reproductive tracts. HNPCC is reported to be the most common form of inherited Colorectal Cancer in the western world. MSH6 is a mismatch repair gene which is deficient in a high proportion of patients with microsatellite instability (MSI-H).

The anti-MSH6 antibody is useful in screening patients and families for HNPCC. Colon cancers that are microsatellite-unstable have a better prognosis than their microsatellite-stable counterparts.

ANTIBODY TYPE	*Rabbit Monoclonal*
CLONE	*EP49**
ISOTYPE	*IgG*
CONTROL	*Colon Mucosa, Colon Carcinoma*
LOCALIZATION	*Nuclear*

CAT. #	PRESENTATION	VOL/QTY
BSB 6932	Tinto Prediluted	3.0 ml
BSB 6933	Tinto Prediluted	7.0 ml
BSB 6934	Tinto Prediluted	15.0 ml
BSB 6935	Concentrated	0.1 ml
BSB 6936	Concentrated	0.5 ml
BSB 6937	Concentrated	1.0 ml
BSB 6938	control slides	5

MUC1



IHC of MUC1 on an FFPE Colon Tissue

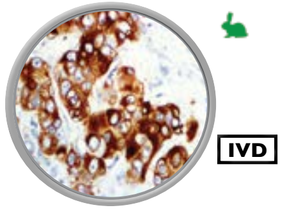
Mucin 1, also known as MUC1, is a human gene. This gene is a member of the mucin family and encodes a membrane-bound, glycosylated phosphoprotein. The protein is anchored to the apical surface of many epithelia by a transmembrane domain, the degree of glycosylation varying with cell type. Mucins are high molecular-weight glycoproteins which constitute the major component of the mucus layer that protects the gastric epithelium from chemical and mechanical aggressions. The MUC1 protein serves a protective function by binding to pathogens and also functions in a cell-signaling capacity. Overexpression, aberrant intracellular localization, and changes in glycosylation of this protein have been associated with carcinomas. Multiple alternatively-spliced transcript variants that encode different isoforms of this gene have been reported, but the full-length nature of only some has been determined.

MUC1 is a large cell, surface-mucin glycoprotein expressed by most glandular and ductal epithelial cells and some hematopoietic cell lineages. It is expressed on most secretory epithelium, including mammary gland and some hematopoietic cells. It is expressed in lactating mammary glands and overexpressed in more than 90% Breast Carcinomas and metastases. Transgenic MUC1 has been shown to associate with all four cebB receptors and localize with erbB1 (EGFR) in lactating glands.

ANTIBODY TYPE	*Mouse Monoclonal*
CLONE	*MRQ-17*
ISOTYPE	*IgG1*
CONTROL	*Breast, Colon Adenocarcinoma*
LOCALIZATION	*Cytoplasmic*

CAT. #	PRESENTATION	VOL/QTY
BSB 6149	Tinto Prediluted	3.0 ml
BSB 6150	Tinto Prediluted	7.0 ml
BSB 6151	Tinto Prediluted	15.0 ml
BSB 6152	Concentrated	0.1 ml
BSB 6153	Concentrated	0.5 ml
BSB 6154	Concentrated	1.0 ml
BSB 6155	control slides	5

MUC1, RMab



IHC of MUC1 on an FFPE Breast Carcinoma Tissue

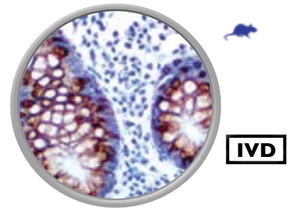
Mucin 1, also known as MUC1, is a member of the mucin family and encodes a membrane-bound, glycosylated phosphoprotein. The protein is anchored to the apical surface of many epithelia by a transmembrane domain, the degree of glycosylation varying with cell type. Mucins are high molecular-weight glycoproteins which constitute the major component of the mucus layer that protects the gastric epithelium from chemical and mechanical aggressions. The MUC1 protein serves a protective function by binding to pathogens and also functions in a cell-signaling capacity. Overexpression, aberrant intracellular localization, and changes in glycosylation of this protein have been associated with carcinomas. Multiple alternatively-spliced transcript variants that encode different isoforms of this gene have been reported, but the full-length nature of only some has been determined.

MUC1 is a large cell, surface-mucin glycoprotein expressed by most glandular and ductal epithelial cells and some hematopoietic cell lineages. It is expressed on most secretory epithelium, including mammary gland and some hematopoietic cells. It is expressed in lactating mammary glands and overexpressed in more than 90% Breast Carcinomas and metastases. Transgenic MUC1 has been shown to associate with all four cebB receptors and localize with erbB1 (EGFR) in lactating glands.

ANTIBODY TYPE	*Rabbit Monoclonal*
CLONE	*EP85**
ISOTYPE	*IgG*
CONTROL	*Breast, Colon Adenocarcinoma*
LOCALIZATION	*Cytoplasmic*

CAT. #	PRESENTATION	VOL/QTY
BSB 6939	Tinto Prediluted	3.0 ml
BSB 6940	Tinto Prediluted	7.0 ml
BSB 6941	Tinto Prediluted	15.0 ml
BSB 6942	Concentrated	0.1 ml
BSB 6943	Concentrated	0.5 ml
BSB 6944	Concentrated	1.0 ml
BSB 6945	control slides	5

MUC2



IHC of MUC2 on an FFPE Colon Tissue

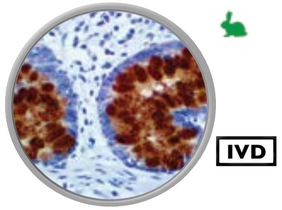
Mucin 2, also known as MUC2, is a human gene that encodes a member of the mucin protein family. The protein encoded by this gene forms an insoluble mucous barrier that protects the gut lumen. The protein polymerizes into a gel of which 80% is composed of oligosaccharide side chains.

MUC2 expression is detected in such human tissues as normal colon, breast, prostate, salivary gland, and in gastrointestinal, colonic, breast and prostate neoplasia. This antibody labels MUC2 in normal Colon and Colon Carcinomas where it produces intense perinuclear staining in goblet cells. It also reacts with normal and neoplastic breast tissues and with Prostate Adenocarcinoma.

ANTIBODY TYPE	*Mouse Monoclonal*
CLONE	*996/1*
ISOTYPE	*IgG1*
CONTROL	*Small Intestine, Colon, Colon Adenocarcinoma*
LOCALIZATION	*Cytoplasmic*

CAT. #	PRESENTATION	VOL/QTY
BSB 6156	Tinto Prediluted	3.0 ml
BSB 6157	Tinto Prediluted	7.0 ml
BSB 6158	Tinto Prediluted	15.0 ml
BSB 6159	Concentrated	0.1 ml
BSB 6160	Concentrated	0.5 ml
BSB 6161	Concentrated	1.0 ml
BSB 6162	control slides	5

MUC2, RMab



IHC of MUC2 on an FFPE Colon Tissue

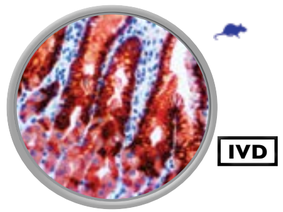
Mucin 2, also known as MUC2, is a human gene. This gene encodes a member of the mucin protein family. The protein encoded by this gene forms an insoluble mucous barrier that protects the gut lumen. The protein polymerizes into a gel of which 80% is composed of oligosaccharide side chains.

MUC2 expression is detected in such human tissues as normal colon, breast, prostate, salivary gland, and in gastrointestinal, colonic, breast and prostate neoplasia. This antibody labels MUC2 in normal Colon and Colon Carcinomas where it produces intense perinuclear staining in goblet cells. It also reacts with normal and neoplastic breast tissues and with Prostate Adenocarcinoma.

ANTIBODY TYPE *Rabbit Monoclonal*
CLONE *EP187**
ISOTYPE *IgG*
CONTROL *Small Intestine, Colon, Colon Adenocarcinoma, Breast*
LOCALIZATION *Cytoplasmic*

CAT. #	PRESENTATION	VOL/QTY
BSB 6946	Tinto Prediluted	3.0 ml
BSB 6947	Tinto Prediluted	7.0 ml
BSB 6948	Tinto Prediluted	15.0 ml
BSB 6949	Concentrated	0.1 ml
BSB 6950	Concentrated	0.5 ml
BSB 6951	Concentrated	1.0 ml
BSB 6952	control slides	5

MUC5AC



IHC of MUC5AC on an FFPE Stomach Tissue

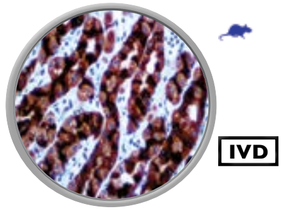
Mucin 5AC, also known as MUC5AC, is a human gene. The Mucin 5AC antigen is found in columnar mucous cells of surface gastric epithelium and in goblet cells of the fetal and precancerous colon but not in normal colon cells. Mucin genes are expressed in a regulated cell- and tissue-specific manner. MUC1 is detected in mucous cells of the surface epithelium and neck region of the gastric antrum, as well as in pyloric glands and oxynthic glands of the body region. MUC5AC is highly expressed in foveolar epithelium of both body and antrum, whereas MUC6 protein expression is limited to mucous neck cells of the body and pyloric glands of the antrum.

The mucin expression pattern of Gastric Carcinoma is heterogeneous. It includes mucins normally expressed in gastric mucosa (MUC1, MUC5AC and MUC6) and de novo expression of the intestinal mucin MUC2. The heterogeneous pattern of mucin expression, including the expression of the intestinal mucin MUC2, may provide new insights into the differentiation pathways of Gastric Carcinoma. It has been shown that in Gastric Carcinomas evaluated for expression of several mucins (MUC1, MUC2, MUC5AC and MUC6), mucin expression is associated with tumor type (MUC5AC with Diffuse and Infiltrative Carcinomas and MUC2 with Mucinous Carcinomas) but not with the clinico-biological behavior of the tumors. Mucin expression is associated with tumor location (MUC5AC with Antrum Carcinomas and MUC2 with Cardia Carcinomas), indirectly reflecting differences in tumor differentiation according to tumor location.

ANTIBODY TYPE *Mouse Monoclonal*
CLONE *CLH2*
ISOTYPE *IgG1*
CONTROL *Stomach*
LOCALIZATION *Cytoplasmic*

CAT. #	PRESENTATION	VOL/QTY
BSB 6163	Tinto Prediluted	3.0 ml
BSB 6164	Tinto Prediluted	7.0 ml
BSB 6165	Tinto Prediluted	15.0 ml
BSB 6166	Concentrated	0.1 ml
BSB 6167	Concentrated	0.5 ml
BSB 6168	Concentrated	1.0 ml
BSB 6169	control slides	5

MUC6



IHC of MUC6 on an FFPE Stomach Tissue

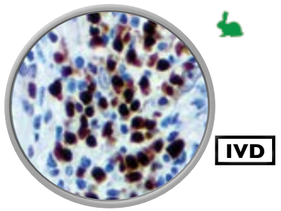
Mucin 6, also known as MUC6, is a human gene. Mucin is a high M.W. (>1,000 kDa) glycoprotein, expressed by mucous cells of the gastric epithelium and by goblet cells of the fetal, precancerous and cancerous colon, but not by those of the normal colon. It also appears in other epithelial tissues, which are embryologically derived from the foregut (epigastric and bronchial epithelium) and in Müller ducts (mucous cells of the endocervix and urethral epithelium near the prostatic utriculus).

MUC6 antibody works well with ethanol-fixed, cultured epithelial cells and ethanol- or formalin-fixed, paraffin-embedded tissue sections. It stains the surface gastric epithelium of normal human gastrointestinal tract and reacts with fetal, precancerous and cancerous colonic mucosa, but not with normal colon.

ANTIBODY TYPE *Mouse Monoclonal*
CLONE *CLH5*
ISOTYPE *IgG1*
CONTROL *Stomach*
LOCALIZATION *Cytoplasmic*

CAT. #	PRESENTATION	VOL/QTY
BSB 6170	Tinto Prediluted	3.0 ml
BSB 6171	Tinto Prediluted	7.0 ml
BSB 6172	Tinto Prediluted	15.0 ml
BSB 6173	Concentrated	0.1 ml
BSB 6174	Concentrated	0.5 ml
BSB 6175	Concentrated	1.0 ml
BSB 6176	control slides	5

MUM1, RMab



IHC of MUM1 on an FFPE Kidney Tissue

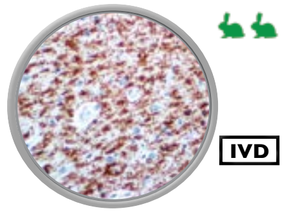
MUM1 (multiple myeloma oncogene-1) also known as interferon regulatory factor 4 (IRF4) is a 50 kDa protein and is a member of the interferon regulatory factor family of transcription factors. It is induced by antigen receptor mediated stimuli and plays an important role in cell proliferation, differentiation and survival. MUM1 is expressed in the nuclei and cytoplasm of plasma cells and a small percentage of germinal center (GC) B-cells commited to plasmacytic or memory cell differentation in the "light zone".

MUM1 is useful for subclassification of lymphoid malignancies and is an excellent marker for Hodgkin's and Reed-Sternberg cells of classic Hodgin's disease.

ANTIBODY TYPE *Rabbit Monoclonal*
CLONE *EP190**
ISOTYPE *IgG*
CONTROL *Tonsil, Plasmacytoma*
LOCALIZATION *Cytoplasmic, Nuclear*

CAT. #	PRESENTATION	VOL/QTY
BSB 6953	Tinto Prediluted	3.0 ml
BSB 6954	Tinto Prediluted	7.0 ml
BSB 6955	Tinto Prediluted	15.0 ml
BSB 6956	Concentrated	0.1 ml
BSB 6957	Concentrated	0.5 ml
BSB 6958	Concentrated	1.0 ml
BSB 6959	control slides	5

Myelin Basic Protein



IHC of Myelin Basic Protein on an FFPE Brain Tissue

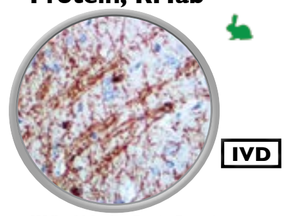
Myelin Basic Protein (MBP) is a protein believed to be important in the process of myelination of nerves in the central nervous system (CNS). The pool of MBP in the central nervous system is very diverse, with several splice variants being expressed and a large number of post-translational modifications on the protein, which include phosphorylation, methylation, deamidation and citrullination.

MBP has been demonstrated in Neuromas, Neurofibromas, and Neurogenic Sarcomas. However, other spindle-cell neoplasms do not stain with this antibody. Immunoreactivity for MBP in Granular-cell Tumors strengthens the concept of a Schwann-cell derivation of these lesions. Unlike other nervous system proteins such as GFAP and S-100, MBP has not been demonstrated in melanocytes or tumors derived from them.

ANTIBODY TYPE *Rabbit Polyclonal*
CLONE *N/A*
ISOTYPE *IgG*
CONTROL *Brain*
LOCALIZATION *Cytoplasmic*

CAT. #	PRESENTATION	VOL/QTY
BSB 5778	Tinto Prediluted	3.0 ml
BSB 5779	Tinto Prediluted	7.0 ml
BSB 5780	Tinto Prediluted	15.0 ml
BSB 5781	Concentrated	0.1 ml
BSB 5782	Concentrated	0.5 ml
BSB 5783	Concentrated	1.0 ml
BSB 5784	control slides	5

Myelin Basic Protein, RMab



IHC of Myelin Basic Protein on an FFPE Brain Tissue

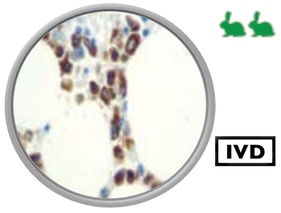
Myelin Basic Protein (MBP) is a protein believed to be important in the process of myelination of nerves in the central nervous system (CNS). The pool of MBP in the central nervous system is very diverse, with several splice variants being expressed and a large number of post-translational modifications on the protein, which include phosphorylation, methylation, deamidation and citrullination.

MBP has been demonstrated in Neuromas, Neurofibromas, and Neurogenic Sarcomas. However, other spindle-cell neoplasms do not stain with this antibody. Immunoreactivity for MBP in Granular-cell Tumors strengthens the concept of a Schwann-cell derivation of these lesions. Unlike other nervous system proteins such as GFAP and S-100, MBP has not been demonstrated in melanocytes or tumors derived from them.

ANTIBODY TYPE *Rabbit Monoclonal*
CLONE *EP207**
ISOTYPE *IgG*
CONTROL *Brain*
LOCALIZATION *Cytoplasmic*

CAT. #	PRESENTATION	VOL/QTY
BSB 6960	Tinto Prediluted	3.0 ml
BSB 6961	Tinto Prediluted	7.0 ml
BSB 6962	Tinto Prediluted	15.0 ml
BSB 6963	Concentrated	0.1 ml
BSB 6964	Concentrated	0.5 ml
BSB 6965	Concentrated	1.0 ml
BSB 6966	control slides	5

Myeloperoxidase



IHC of Myeloperoxidase on an FFPE Bone Marrow Tissue

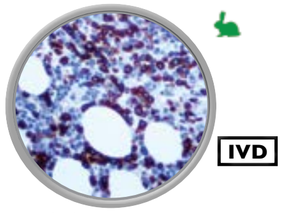
Myeloperoxidase (MPO) is a peroxidase enzyme most abundantly present in neutrophil granulocytes. It is a lysosomal protein stored in azurophilic granules of the neutrophil. MPO has a heme pigment, which causes its green color in secretions rich in neutrophils, such as pus and some forms of mucus. Historically, immunohistochemical staining for myeloperoxidase was used in the diagnosis of Acute Myeloid Leukemia to demonstrate that the leukemic cells were derived from the myeloid lineage. Myeloperoxidase staining is still important in the diagnosis of Extramedullary Leukemia or Chloroma.

Myeloperoxidase detects granulocytes and monocytes in blood and precursors of granulocytes in the bone marrow. This antibody can detect myeloid cell populations of the bone marrow as well as in other sites.

ANTIBODY TYPE *Rabbit Polyclonal*
CLONE *N/A*
ISOTYPE *IgG*
CONTROL *Bone Marrow*
LOCALIZATION *Cytoplasmic*

CAT. #	PRESENTATION	VOL/QTY
BSB 5785	Tinto Prediluted	3.0 ml
BSB 5786	Tinto Prediluted	7.0 ml
BSB 5787	Tinto Prediluted	15.0 ml
BSB 5788	Concentrated	0.1 ml
BSB 5789	Concentrated	0.5 ml
BSB 5790	Concentrated	1.0 ml
BSB 5791	control slides	5

Myeloperoxidase, RMab



IHC of Myeloperoxidase on an FFPE Bone Marrow Tissue

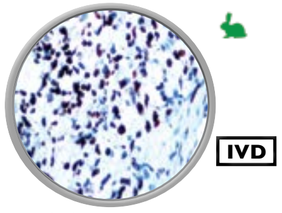
Myeloperoxidase (MPO) is a peroxidase enzyme most abundantly present in neutrophil granulocytes. It is a lysosomal protein stored in azurophilic granules of the neutrophil. MPO has a heme pigment, which causes its green color in secretions rich in neutrophils, such as pus and some forms of mucus. Historically, immunohistochemical staining for myeloperoxidase was used in the diagnosis of Acute Myeloid Leukemia to demonstrate that the leukemic cells were derived from the myeloid lineage. Myeloperoxidase staining is still important in the diagnosis of Extramedullary Leukemia or Chloroma.

Myeloperoxidase detects granulocytes and monocytes in blood and precursors of granulocytes in the bone marrow. This antibody can detect myeloid cell populations of the bone marrow as well as in other sites.

ANTIBODY TYPE *Rabbit Monoclonal*
CLONE *EP151**
ISOTYPE *IgG*
CONTROL *Bone Marrow*
LOCALIZATION *Cytoplasmic*

CAT. #	PRESENTATION	VOL/QTY
BSB 6967	Tinto Prediluted	3.0 ml
BSB 6968	Tinto Prediluted	7.0 ml
BSB 6969	Tinto Prediluted	15.0 ml
BSB 6970	Concentrated	0.1 ml
BSB 6971	Concentrated	0.5 ml
BSB 6972	Concentrated	1.0 ml
BSB 6973	control slides	5

MyoD1, RMab



IHC of MyoD1 on an FFPE Rhabydomyosarcoma Tissue

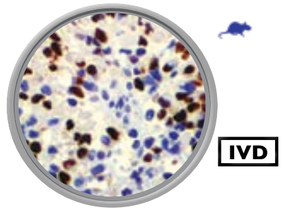
MyoD1 belongs to a family of proteins known as myogenic regulatory factors (MRFs) and has a key role in regulating muscle differentation. These bHLH (basic helix loop helix) transcription factors act sequentially in myogenic differentiation. MyoD1 is expressed in activated satellite cells, but not in quiescent satellite cells. In development, MyoD1 commits mesoderm cells to a skeletal lineage, and then regulates that process. It may also play a role in muscle repair.

In abnormal tissues, MyoD1 labels tumor cells in Rhabdomyosarcoma and is one of the earliest markers of myogenic commitment.

ANTIBODY TYPE *Rabbit Monoclonal*
CLONE *EP212**
ISOTYPE *IgG*
CONTROL *Fetal Muscle, Rhabdomyosarcoma*
LOCALIZATION *Nuclear*

CAT. #	PRESENTATION	VOL/QTY
BSB 6974	Tinto Prediluted	3.0 ml
BSB 6975	Tinto Prediluted	7.0 ml
BSB 6976	Tinto Prediluted	15.0 ml
BSB 6977	Concentrated	0.1 ml
BSB 6978	Concentrated	0.5 ml
BSB 6979	Concentrated	1.0 ml
BSB 6980	control slides	5

Myogenin



IHC of Myogenin on an FFPE Rhabdomyosarcoma Tissue

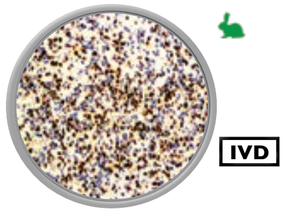
Myogenin is a transcription factor active in muscles. In particular, it is a myogenic regulatory factor. Myogenin is a member of a family of myogenic regulatory genes, which includes MyoD, myf5 and MRF4. These genes encode a set of transcription factors which are essential for muscle development. Expression of myogenin is restricted to cells of skeletal-muscle origin. It is, therefore, a useful marker for tumors of the muscle lineage, being strongly expressed in Alveolar Rhabdomyosarcomas.

Anti-myogenin labels the nuclei of myoblasts in developing muscle tissue, and is expressed in tumor cell nuclei of Rhabdomyosarcoma and some Leiomyosarcomas. Positive nuclear staining may occur in Wilm's Tumor.

ANTIBODY TYPE *Mouse Monoclonal*
CLONE *F5D*
ISOTYPE *IgG1/K*
CONTROL *Rhabdomyosarcoma*
LOCALIZATION *Nuclear*

CAT. #	PRESENTATION	VOL/QTY
BSB 5792	Tinto Prediluted	3.0 ml
BSB 5793	Tinto Prediluted	7.0 ml
BSB 5794	Tinto Prediluted	15.0 ml
BSB 5795	Concentrated	0.1 ml
BSB 5796	Concentrated	0.5 ml
BSB 5797	Concentrated	1.0 ml
BSB 5798	control slides	5

Myogenin, RMab



IHC of Myogenin on an FFPE Rhabdomyosarcoma Tissue

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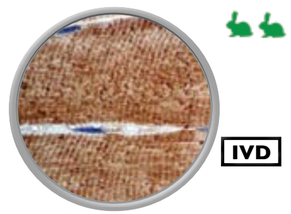
Anti-myogenin labels the nuclei of myoblasts in developing muscle tissue, and is expressed in tumor cell nuclei of Rhabdomyosarcoma and some Leiomyosarcomas. Positive nuclear staining may occur in Wilm's Tumor.

ANTIBODY TYPE *Rabbit Monoclonal*
CLONE *EP162**
ISOTYPE *IgG*
CONTROL *Rhabdomyosarcoma*
LOCALIZATION *Nuclear*

CAT. #	PRESENTATION	VOL/QTY
BSB 2342	Tinto Prediluted	3.0 ml
BSB 2343	Tinto Prediluted	7.0 ml
BSB 2344	Tinto Prediluted	15.0 ml
BSB 2345	Concentrated	0.1 ml
BSB 2346	Concentrated	0.5 ml
BSB 2347	Concentrated	1.0 ml
BSB 2348	control slides	5

Myoglobin



IHC of Myoglobin on an FFPE Skeletal Muscle Tissue

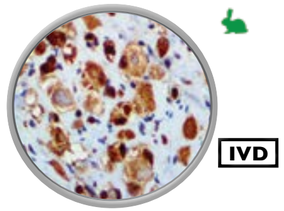
Myoglobin is a single-chain globular protein of 153 amino acids, containing a heme (iron-containing porphyrin) prosthetic group in the center around which the remaining apoprotein folds. With a molecular weight of 16.7 kDa, it is the primary oxygen-carrying pigment of muscle tissues.

Immunostaining with Myoglobin provides a specific, sensitive and practical procedure for the identification of Rhabdomyosarcoma. Since myoglobin is found exclusively in skeletal and cardiac muscle and is not present in any other cells of the human body, it may be used to distinguish Rhabdomyosarcoma from other soft-tissue tumors. Myoglobin staining is also useful when demonstrating rhabdomyoblastic differentiation in other tumors, e.g., Neurogenic Sarcomas and Malignant Mixed Mesodermal Tumors of the uterus and ovary.

ANTIBODY TYPE *Rabbit Polyclonal*
CLONE *N/A*
ISOTYPE *IgG*
CONTROL *Skeletal Muscle*
LOCALIZATION *Cytoplasmic*

CAT. #	PRESENTATION	VOL/QTY
BSB 5799	Tinto Prediluted	3.0 ml
BSB 5800	Tinto Prediluted	7.0 ml
BSB 5801	Tinto Prediluted	15.0 ml
BSB 5802	Concentrated	0.1 ml
BSB 5803	Concentrated	0.5 ml
BSB 5804	Concentrated	1.0 ml
BSB 5805	control slides	5

Myoglobin, RMab



IHC of Myoglobin on an FFPE Rhabdomyosarcoma Tissue

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ANTIBODY TYPE *Rabbit Monoclonal*
CLONE *EP87**
ISOTYPE *IgG*
CONTROL *Skeletal Muscle*
LOCALIZATION *Cytoplasmic*

CAT. #	PRESENTATION	VOL/QTY
BSB 6981	Tinto Prediluted	3.0 ml
BSB 6982	Tinto Prediluted	7.0 ml
BSB 6983	Tinto Prediluted	15.0 ml
BSB 6984	Concentrated	0.1 ml
BSB 6985	Concentrated	0.5 ml
BSB 6986	Concentrated	1.0 ml
BSB 6987	control slides	5

Myosin, Smooth Muscle Heavy Chain

IHC of Myosin Smooth Muscle Heavy Chain on an FFPE Appendix Tissue

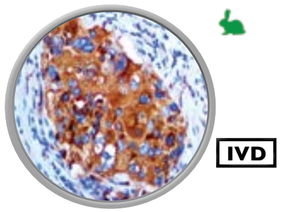
Myosins are a large family of motor proteins found in eukaryotic tissues. They are responsible for actin-based motility. Smooth Muscle Myosin, Heavy Chain is a cytoplasmic structural protein that is a major component of the contractile apparatus of the smooth muscle cells, as well as a myoepithelium-associated protein.

SMM-H24 is a mouse monoclonal antibody to Smooth Muscle Myosin, Heavy Chain that reacts with human visceral and vascular smooth muscle cells. The antibody also reacts with human myoepithelial cells. It is very helpful in distinguishing between benign sclerosing breast lesions and infiltrating Carcinomas in difficult cases, since it strongly stains the myoepithelial layer in the benign lesions while it is negative in the infiltrating Carcinomas.

ANTIBODY TYPE *Mouse Monoclonal*
CLONE *SMM-H24*
ISOTYPE *IgG1/K*
CONTROL *Intestine, Breast*
LOCALIZATION *Cytoplasmic*

CAT. #	PRESENTATION	VOL/QTY
BSB 5924	Tinto Prediluted	3.0 ml
BSB 5925	Tinto Prediluted	7.0 ml
BSB 5926	Tinto Prediluted	15.0 ml
BSB 5927	Concentrated	0.1 ml
BSB 5928	Concentrated	0.5 ml
BSB 5929	Concentrated	1.0 ml
BSB 5930	control slides	5

Napsin A, RMab



IHC of Napsin A on an FFPE Lung Adenocarcinoma Tissue

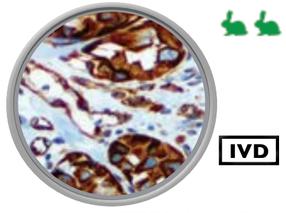
The activation peptides of aspartic proteinases play a role as inhibitors of the active site. These peptide segments, or pro-parts, are deemed important for correct folding, targeting, and control of the activation of aspartic proteinase zymogens. The pronapsin A gene is expressed predominantly in lung and kidney. Its translation product is predicted to be a fully functional glycosylated aspartic proteinase precursor containg an RGD motif and an addition 18 residues at its C-terminus.

In normal tissue, anti-Napsin A labels type II pneumocytes in adult lung and epithelial cells in kidney tissues. In abnormal tissues, Napsin A is a useful marker for lung adenocarcinoma.

ANTIBODY TYPE *Rabbit Monoclonal*
CLONE *EP205**
ISOTYPE *IgG*
CONTROL *Lung, Lung Carcinoma, Renal Cell Carcinoma*
LOCALIZATION *Cytoplasmic*

CAT. #	PRESENTATION	VOL/QTY
BSB 6988	Tinto Prediluted	3.0 ml
BSB 6989	Tinto Prediluted	7.0 ml
BSB 6990	Tinto Prediluted	15.0 ml
BSB 6991	Concentrated	0.1 ml
BSB 6992	Concentrated	0.5 ml
BSB 6993	Concentrated	1.0 ml
BSB 6994	control slides	5

Nestin



IHC of Nestin on an FFPE Melanoma Tissue

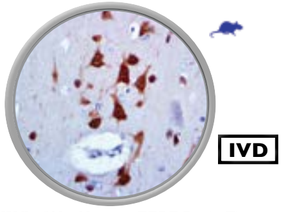
Nestin is a type VI intermdiate filament protein; they are expressed mostly in nerve cells where they are implicated in the radial growth of the axon. Nestin is expressed in dividing cells during the early stages of development in the Central Nervous System (CNS), Peripheral Nervous System (PNS) and in myogenic and other tissues. Nestin is expressed by many types of cells during development, although its expression is usually transient and does not persist into adulthood. Nestin is however expressed in the neuronal precursor cells of the subgranular zone in adult organisms. Its expression is also reinduced in the adult during pathological situations, such as the formation of the glial scar after CNS injury and during regeneration of injured muscle tissue.

It has been reported that Nestin expression is significantly increased in melanoma and correlated with more advanced stages of the disease. It has also been reported in tumors of the CNS, including astrocytoma, ependymoma, oligodendroglioma, glioblastoma, and primitive neureoctodermal tumors, as well as in carcinomas such as prostatic adenocarcinoma, pancreatic ductal carcinoma, thyroid carcinoma, and in mesenchymal tumors. In breast carcinoma subtypes, Nestin is highly expressed in basal breast cancer but not in the HER2 subtype or luminal epithelial phenotype. In normal skin, Nestin is expressed in endothelial cells and the bulge area of hair follicles.

ANTIBODY TYPE *Rabbit Polyclonal*
CLONE *N/A*
ISOTYPE *IgG*
CONTROL *Kidney, Liver Carcinoma*
LOCALIZATION *Cytoplasmic*

CAT. #	PRESENTATION	VOL/QTY
BSB 2000	Tinto Prediluted	3.0 ml
BSB 2001	Tinto Prediluted	7.0 ml
BSB 2002	Tinto Prediluted	15.0 ml
BSB 2003	Concentrated	0.1 ml
BSB 2004	Concentrated	0.5 ml
BSB 2005	Concentrated	1.0 ml
BSB 2006	control slides	5

NeuN



IHC of NeuN on an FFPE Brain Tissue

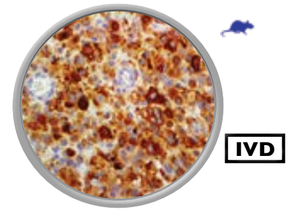
NeuN (Feminizing Locus on X-3, Fox-3, or Hexaribonucleotide Binding Protein-3) is a neuron-specific protein that is present in most Central Nervous System (CNS) and Peripheral Nervous System (PNS) neuronal cell types. NeuN protein distributions are restricted to neuronal nuclei, perikarya and some proximal neuronal processes in both fetal and adult brain. However, some neurons fail to be recognized by NeuN at all ages, such as INL retinal cells, Cajal-Retzius cells, Purkinje cells, inferior olivary and dentate nucleus neurons, and sympathetic ganglion cells.

NeuN is widely used to label neurons since the vast majority of neurons are strongly positive. NeuN immunoreactivity becomes obvious as neurons mature, typically after they have downregulated expression of Doublecortin, a marker seen in the earliest stages of neuronal development.

ANTIBODY TYPE *Mouse Monoclonal*
CLONE *A60*
ISOTYPE *IgG1*
CONTROL *Brain*
LOCALIZATION *Nuclear*

CAT. #	PRESENTATION	VOL/QTY
BSB 2007	Tinto Prediluted	3.0 ml
BSB 2008	Tinto Prediluted	7.0 ml
BSB 2009	Tinto Prediluted	15.0 ml
BSB 2010	Concentrated	0.1 ml
BSB 2011	Concentrated	0.5 ml
BSB 2012	Concentrated	1.0 ml
BSB 2013	control slides	5

Neuroblastoma



IHC of Neuroblastoma on an FFPE Neuroblastoma Tissue

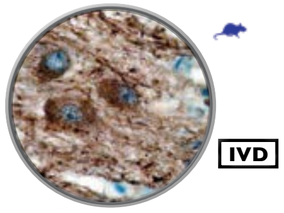
Neuroblastoma is the most common extracranial solid cancer in infancy and childhood. It is a neuroendocrine tumor, arising from any neural crest element of the sympathetic nervous system. The incidence of Neuroblastoma is about 1 per 100,000 infants.

Anti-Neuroblastoma is a monoclonal antibody produced using human Neuroblastoma tissue as a source of antigen. It recognizes an uncharacterized 57 kDa molecule. It is useful in identifying Neuroblastoma (99% (+)) and Desmoplastic Small Round-Cell Tumors (50% (+)). A small percentage of Ewing's Sarcoma (20%) and Rhabdomyosarcomas (20%) stain positive with this antibody.

ANTIBODY TYPE *Mouse Monoclonal*
CLONE *NB84a*
ISOTYPE *IgG1*
CONTROL *Neuroblastoma*
LOCALIZATION *Cytoplasmic*

CAT. #	PRESENTATION	VOL/QTY
BSB 5806	Tinto Prediluted	3.0 ml
BSB 5807	Tinto Prediluted	7.0 ml
BSB 5808	Tinto Prediluted	15.0 ml
BSB 5809	Concentrated	0.1 ml
BSB 5810	Concentrated	0.5 ml
BSB 5811	Concentrated	1.0 ml
BSB 5812	control slides	5

Neurofilament



IHC of Neurofilament on an FFPE Brain Tissue

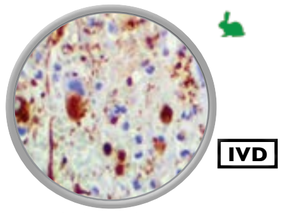
Neurofilaments are the Type IV family of intermediate filaments that are found in high concentrations along the axons of vertebrate neurons.

Neurofilament antibody stains an antigen localized in a number of neural, neuroendocrine and endocrine tumors. Neuromas, Ganglioneuromas, Gangliogliomas, Ganglioneuroblastomas and Neuroblastomas stain positively for neurofilament. Neurofilaments are also present in Paragangliomas and Adrenal and Extra-Adrenal Pheochromocytomas. Carcinoids, Neuroendocrine Carcinomas of the Skin, and Oat Cell Carcinomas of the Lung also express neurofilament.

ANTIBODY TYPE	*Mouse Monoclonal*
CLONE	*2F11*
ISOTYPE	*IgG1/K*
CONTROL	*Brain*
LOCALIZATION	*Cytoplasmic*

CAT. #	PRESENTATION	VOL/QTY
BSB 5813	Tinto Prediluted	3.0 ml
BSB 5814	Tinto Prediluted	7.0 ml
BSB 5815	Tinto Prediluted	15.0 ml
BSB 5816	Concentrated	0.1 ml
BSB 5817	Concentrated	0.5 ml
BSB 5818	Concentrated	1.0 ml
BSB 5819	control slides	5

Neurofilament, RMab



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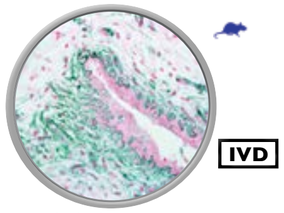
Neurofilament antibody identifies an antigen localized in a number of neural, neuroendocrine and endocrine tumors. Neuromas, Ganglioneuromas, Gangliogliomas, Ganglioneuroblastomas and Neuroblastomas stain positively for neurofilament. Neurofilaments are also present in Paragangliomas and Adrenal and Extra-Adrenal Pheochromocytomas. Carcinoids, Neuroendocrine Carcinomas of the Skin, and Oat Cell Carcinomas of the Lung also express neurofilament.

ANTIBODY TYPE	*Rabbit Monoclonal*
CLONE	*EP79**
ISOTYPE	*IgG*
CONTROL	*Brain*
LOCALIZATION	*Cytoplasmic*

CAT. #	PRESENTATION	VOL/QTY
BSB 2014	Tinto Prediluted	3.0 ml
BSB 2015	Tinto Prediluted	7.0 ml
BSB 2016	Tinto Prediluted	15.0 ml
BSB 2017	Concentrated	0.1 ml
BSB 2018	Concentrated	0.5 ml
BSB 2019	Concentrated	1.0 ml
BSB 2020	control slides	5

NGFR



IHC of NGFR on an FFPE Breast Fibroadenoma Tissue

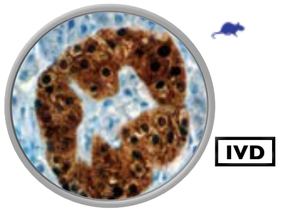
NGFR (Nerve Growth Factor Receptor), also termed p75 or CD271, is the low-affinity NGFR (LNGFR) which binds NGF and other neurotrophins, including BDNF, NT3 and NT4/5 with similar low-affinity. NGFR p75 is a 75 kD transmembrane glycoprotein that is mainly expressed in Schwann cells and neurons and in a variety of non-neuronal cells. NGFR p75 is necessary for regulating neuronal growth, migration, differentiation and cell death during development of the central and peripheral nervous system. NGFR p75 plays a central role in the regulation of cell number by apoptosis in the developing CNS. During early development, activation of NGFR p75 by NGF induces apoptotic cell death in some neuronal cells, probably through activation of the sphingomyelinase/ceramide pathway, the ICE-like proteases and the JNK pathway. CD271 has recently been described as being expressed in mesenchymal stem cells (bone marrow stromal cells).

NGFR is expressed not only in sympathetic and sensory neurons, but also in various neural crest cell or tumor derivatives such as melanocytes, Melanomas, Neuroblastomas, Pheochromocytomas, Neurofibromas, and neurotized nevi (Type C melanocytes). It is now apparent that expression of NGFR is ubiquitous and not limited to the nervous system, being expressed in mature non-neural cells such as perivascular cells, dental pulp cells, lymphoid follicular dendritic cells, basal epithelium of oral mucosa and hair follicles, prostate basal cells and myoepithelial cells. Studies in Prostate and Urothelial Cancer suggest that NGFR may act as a tumor suppressor, negatively regulating cell growth and proliferation. NGFR labels the myoepithelial cells of breast ducts and intralobular fibroblasts of breast ducts and, thus, aids in the diagnosis of malignancy in the breast.

ANTIBODY TYPE	*Mouse Monoclonal*
CLONE	*NGFR/c10*
ISOTYPE	*IgG1*
CONTROL	*Breast, CNS Tumor*
LOCALIZATION	*Cytoplasmic*

CAT. #	PRESENTATION	VOL/QTY
BSB 6289	Tinto Prediluted	3.0 ml
BSB 6290	Tinto Prediluted	7.0 ml
BSB 6291	Tinto Prediluted	15.0 ml
BSB 6292	Concentrated	0.1 ml
BSB 6293	Concentrated	0.5 ml
BSB 6294	Concentrated	1.0 ml
BSB 6295	control slides	5

NSE



IHC of NSE on an FFPE Pancreas Tissue

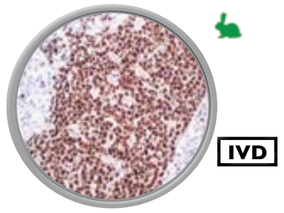
Neuron-Specific Enolase (NSE, Enolase 2) is a human gene. It makes a phosphopyruvate hydratase. This gene encodes one of the three enolase isoenzymes found in mammals. This isoenzyme, a homodimer, is found in mature neurons and cells of neuronal origin. A switch from alpha enolase to gamma enolase occurs in neural tissue during development in rats and primates.

NSE is present in high concentration in neurons and in central and peripheral neuroendocrine cells; therefore, NSE reacts with cells of neural and neuroendocrine lineage. If neoplastic cells coexpress keratins and NSE, neuroendocrine differentiation is probable. However, neural tumors that do not express keratin, and show no staining with NSE, would not exclude neural or neuroendocrine differentiation. Thus, detection of neural and neuroendocrine lineage requires the use of panels which include NSE and other markers such as keratin, chromogranin, synaptophysin and neurofilament.

ANTIBODY TYPE	*Mouse Monoclonal*
CLONE	*MRQ-55*
ISOTYPE	*IgG2b*
CONTROL	*Pancreas*
LOCALIZATION	*Cytoplasmic*

CAT. #	PRESENTATION	VOL/QTY
BSB 5820	Tinto Prediluted	3.0 ml
BSB 5821	Tinto Prediluted	7.0 ml
BSB 5822	Tinto Prediluted	15.0 ml
BSB 5823	Concentrated	0.1 ml
BSB 5824	Concentrated	0.5 ml
BSB 5825	Concentrated	1.0 ml
BSB 5826	control slides	5

OCT-2, RMab



IHC of OCT-2 on an FFPE Lymphoma Tissue

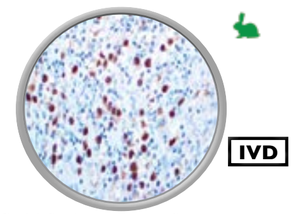
Octamer transcription factor-2 (OCT-2) possesses a leucine zipper domain and belongs to the POU family of transcription factors. It binds to the octamer motif (5-ATTTCAT-3), activates immunoglobulin gene expression and regulates transcription in a number of tissues. OCT-2 is important for the expression of B cell specific genes, such as CD20 and CRISP-3. OCT-2 is expressed in mature B cells, predominantly germinal center B cells.

The OCT-2 antibody labels various B cell lymphomas with strong expression in germinal center-derived lymphomas.

ANTIBODY TYPE	*Rabbit Monoclonal*
CLONE	*EP115**
ISOTYPE	*IgG*
CONTROL	*Tonisl, Lymph Node*
LOCALIZATION	*Nuclear*

CAT. #	PRESENTATION	VOL/QTY
BSB 2021	Tinto Prediluted	3.0 ml
BSB 2022	Tinto Prediluted	7.0 ml
BSB 2023	Tinto Prediluted	15.0 ml
BSB 2024	Concentrated	0.1 ml
BSB 2025	Concentrated	0.5 ml
BSB 2026	Concentrated	1.0 ml
BSB 2027	control slides	5

OCT-4, RMab



IHC of OCT-4 on an FFPE Seminoma Tissue

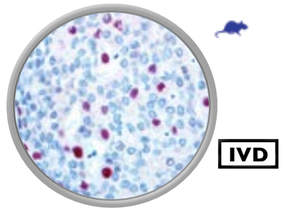
OCT-4 (octamer-binding transcription factor 4) also known as POU5F1 (POU domain, class 5, transcription factor 1) is a protein that in humans is homeodomain transcription factor of the POU family. This protein is critically involved in the self-renewal of undifferentiated embryonic stem cells. Clear cell carcinoma may enter the differential diagnosis of dysgerminoma as both may grow in nests or tubules, contain clear cells, and have a prominent inflammatory infiltrate (lymphocytes in dysgerminoma and plasma cells in clear cell carcinoma).

Expression of the OCT-4 antibody is potentially correlated with tumorigenesis and can affect some aspects of tumor behavior such as tumor recurrence or resistance to therapies. OCT-4 is expressed in undifferentiated pluriopotency cells, germ cells in ovary and testes. OCT-4 is a sensitive and specific marker for germ cell tumors. It is consistently detected in carcinoma in situ/gonadoblastoma, seminomas, germinoma, dysgerminoma, and embryonal carcinoma but not in the differentiated components of nonseminomas.

ANTIBODY TYPE	*Rabbit Monoclonal*
CLONE	*EP143**
ISOTYPE	*IgG*
CONTROL	*Seminoma, Dysgerminoma*
LOCALIZATION	*Nuclear*

CAT. #	PRESENTATION	VOL/QTY
BSB 2028	Tinto Prediluted	3.0 ml
BSB 2029	Tinto Prediluted	7.0 ml
BSB 2030	Tinto Prediluted	15.0 ml
BSB 2031	Concentrated	0.1 ml
BSB 2032	Concentrated	0.5 ml
BSB 2033	Concentrated	1.0 ml
BSB 2034	control slides	5

p21



IHC of p21 on an FFPE Colon Carcinoma Tissue

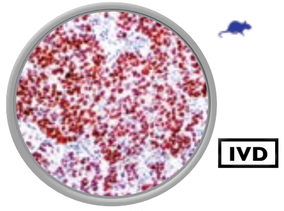
p21 is a potent cyclin-dependent kinase inhibitor. The p21 protein binds to and inhibits the activity of cyclin-CDK2 or -CDK1 complexes, and thus functions as a regulator of cell cycle progression at G1. The expression of this gene is tightly controlled by the tumor suppressor protein p53, through which this protein mediates the p53-dependent cell cycle G1 phase arrest in response to a varity of stimuli. In addition to growth arrest, p21 can mediate cellular senescence. p21 can also interact with proliferating cell nuclear antigen (PCNA) and plays a regulatory role in S phase DNA replication and DNA damage repair.

Normal cells typically display a rather intense nuclear p21 expression. Loss of p21 expression has been associated with poor prognosis in several carcinomas including Gastric Carcinoma, Non-Small Cell Lung Carcinoma and Thyroid Carcinoma.

ANTIBODY TYPE *Mouse Monoclonal*
CLONE *DCS-60.2*
ISOTYPE *IgG2a*
CONTROL *Colon, Colon Carcinoma, Tonsil*
LOCALIZATION *Nuclear*

CAT. #	PRESENTATION	VOL/QTY
BSB 2063	Tinto Prediluted	3.0 ml
BSB 2064	Tinto Prediluted	7.0 ml
BSB 2065	Tinto Prediluted	15.0 ml
BSB 2066	Concentrated	0.1 ml
BSB 2067	Concentrated	0.5 ml
BSB 2068	Concentrated	1.0 ml
BSB 2069	control slides	5

p27 KIP1



IHC of p27 KIP1 on an FFPE Breast Carcinoma Tissue

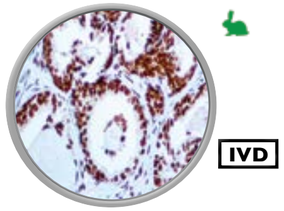
p27 KIP1 is a cell cycle regulatory mitotic inhibitor of Cdk activity. p27 KIP1 is a candidate-tumor suppressor gene, and has been proposed to function as a possible mediator of TGF beta induced G1 arrest. p27 KIP1 is up-regulated in response to antimitogenic stimuli. The increased protein expression of p27 KIP1 results in cellular arrest by binding to cyclin/Cdk complexes such as cyclin D1/Cdk4.

Low p27 KIP1 expression has been associated with unfavorable prognosis in Renal-cell Carcinoma, Colon Carcinoma, Breast Carcinomas, Non-small-cell Lung Carcinoma, Hepatocellular Carcinoma, Multiple Myeloma, lymph node metastases in Papillary Carcinoma of the Thyroid, and a more aggressive phenotype of Carcinoma in the Cervix.

ANTIBODY TYPE *Mouse Monoclonal*
CLONE *SX53G8*
ISOTYPE *IgG1/K*
CONTROL *Colon Adenocarcinoma, Non-Small Cell Lung Carcinoma, Prostate*
LOCALIZATION *Nuclear*

CAT. #	PRESENTATION	VOL/QTY
BSB 5834	Tinto Prediluted	3.0 ml
BSB 5835	Tinto Prediluted	7.0 ml
BSB 5836	Tinto Prediluted	15.0 ml
BSB 5837	Concentrated	0.1 ml
BSB 5838	Concentrated	0.5 ml
BSB 5839	Concentrated	1.0 ml
BSB 5840	control slides	5

p40, RMab



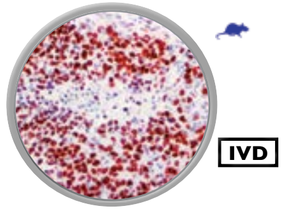
IHC of p40 on an FFPE Prostate Tissue

p40 is an antibody that recognizes ΔNp63-a p63 isoform and it is highly specific for squamous/basal cells. It may be a valuable marker in detecting Squamous Cell Carcinoma where p63 is currently used. It recognizes the shortest variant of p53. p40 is superior in specificity to p63 because it does not label lung adenocarinomas like p63 does, which eliminates the potential of misinterpreting a positive adenocarcinoma as a squamous cell carcinoma.

ANTIBODY TYPE *Rabbit Monoclonal*
CLONE *ZR8*
ISOTYPE *IgG*
CONTROL *Normal Prostate, Breast*
LOCALIZATION *Nuclear*

CAT. #	PRESENTATION	VOL/QTY
BSB 2070	Tinto Prediluted	3.0 ml
BSB 2071	Tinto Prediluted	7.0 ml
BSB 2072	Tinto Prediluted	15.0 ml
BSB 2073	Concentrated	0.1 ml
BSB 2074	Concentrated	0.5 ml
BSB 2075	Concentrated	1.0 ml
BSB 2076	control slides	5

p53



IHC of p53 on an FFPE Breast Carcinoma Tissue

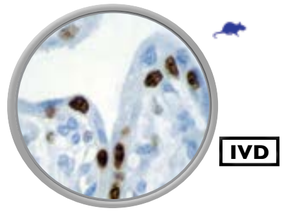
p53 (also known as tumor protein 53 [TP53]) is a transcription factor that regulates the cell cycle and, hence, functions as a tumor suppressor. p53 has been described as "the guardian of the genome", referring to its role in conserving stability by preventing genome mutation. p53 has many anti-cancer mechanisms. It can activate DNA repair proteins when DNA has sustained damage; it can also hold the cell cycle at the G1/S regulation point on DNA damage recognition. It can initiate apoptosis, programmed cell death, if DNA damage proves to be irreparable. p53 is central to many of the cell's anti-cancer mechanisms. It can induce growth arrest, apoptosis and cell senescence.

Mutations involving p53 have been found in a wide variety of malignant tumors, including Breast, Ovarian, Bladder, Colon, Lung, and Melanoma.

ANTIBODY TYPE *Mouse Monoclonal*
CLONE *DO7*
ISOTYPE *IgG2b/K*
CONTROL *Colon, Breast Carcinoma*
LOCALIZATION *Nuclear*

CAT. #	PRESENTATION	VOL/QTY
BSB 5841	Tinto Prediluted	3.0 ml
BSB 5842	Tinto Prediluted	7.0 ml
BSB 5843	Tinto Prediluted	15.0 ml
BSB 5844	Concentrated	0.1 ml
BSB 5845	Concentrated	0.5 ml
BSB 5846	Concentrated	1.0 ml
BSB 5847	control slides	5

p57 KIP2



IHC of p57 KIP2 on an FFPE Placenta Tissue

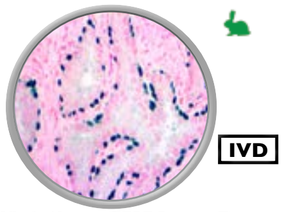
p57 or p57 KIP2 is a tumor-suppressor human gene that belongs to the cip/kip gene family. It encodes a cell cycle inhibitor that binds to G1 cyclin-CDK complexes. Thus, p57 KIP2 causes arrest of the cell-cycle in G1 phase. A mutation of this gene may lead to loss of control over the cell-cycle leading to uncontrolled cellular proliferation. The gene encoding human p57 KIP2 is located on chromosome 11p15.5, a region implicated in sporadic cancers, Wilm's Tumor and Beckwith Wiedemann Syndrome (BWS is characterized by increased risk of tumor formation in childhood), making it a tumor suppressor candidate.

Anti- p57 KIP2 has been used to aide in discriminating Complete Hydatidiform Mole (CHM) (no nuclear labeling of cytotrophoblasts) from Partial Hydatidiform Mole (PHM) and hydropic abortion. In normal placenta, many cytotrophoblast nuclei and stromal cells are labelled with this antibody. Similar findings apply to PHM and hydropic abortus tissues. Intervillous Trophoblastic Islands (IVTIs) demonstrate nuclear labeling in all three entities and serve as an internal control.

ANTIBODY TYPE *Mouse Monoclonal*
CLONE *Kp10*
ISOTYPE *IgG2b/K*
CONTROL *Placenta, Colon Carcinoma*
LOCALIZATION *Nuclear*

CAT. #	PRESENTATION	VOL/QTY
BSB 6191	Tinto Prediluted	3.0 ml
BSB 6192	Tinto Prediluted	7.0 ml
BSB 6193	Tinto Prediluted	15.0 ml
BSB 6194	Concentrated	0.1 ml
BSB 6195	Concentrated	0.5 ml
BSB 6196	Concentrated	1.0 ml
BSB 6197	control slides	5

p63, RMab



IHC of p63 on an FFPE Prostate Tissue

In addition to p53, mammalian cells contain two homologous genes, p63 and p73. These genes give rise to the expression of proteins that are highly similar to p53 in structure and function. In particular, p63 and p73 proteins can induce p53-responsive genes and elicit programmed cell death. p73 and p63 are more important during development and differentiation. In particular, p63 appears to be primarily implicated in epithelial development.

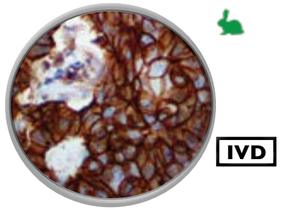
Anti-p63 to human p63 protein labels an epitope common to all six p63 isotypes (TAp63α, TAp63β, TAp63γ, ΔNp63α, ΔNp63β, ΔNp63γ). p63 labels the nuclei of myoepithelial cells in the prostate gland as well as breast tissue, making it useful in differentiating benign vs. malignant prostate lesions and breast lesions.

ANTIBODY TYPE *Rabbit Monoclonal*
CLONE *EP174**
ISOTYPE *IgG*
CONTROL *Normal Prostate, Breast*
LOCALIZATION *Nuclear*

CAT. #	PRESENTATION	VOL/QTY
BSB 5848	Tinto Prediluted	3.0 ml
BSB 5849	Tinto Prediluted	7.0 ml
BSB 5850	Tinto Prediluted	15.0 ml
BSB 5851	Concentrated	0.1 ml
BSB 5852	Concentrated	0.5 ml
BSB 5853	Concentrated	1.0 ml
BSB 5854-1	control slides	5

Not for sale in the USA

p120 Catenin, RMab



IHC of p120 Catenin on an FFPE Breast Carcinoma Tissue

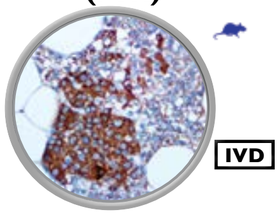
p120 Catenin is a member of the Armadillo protein family, which function in adhesion between cells and signal transduction. The association of catenins to cadherins produces a complex which is linked to the actin filament network, and which seems to be important for cadherins cell-adhesion properties. Cytoplasmic accumulation of p120 Catenin has been observed in lung cancer, pancreatic cancer, gastric cancer and colon cancers and is associated with poor prognosis in colon cancer patients.

In breast lobular neoplasia, anti-p120 Catenin shows a diffuse cytoplasmic immunostaining pattern, while breast ductal neoplasia retains the membrane immunostaining pattern. p120 Catenin can be useful in differentiating between lobular carcinoma and ductal carcinoma of the breast, and in identifying early lesions of lobular neoplasia.

ANTIBODY TYPE	*Rabbit Monoclonal*
CLONE	*EP66**
ISOTYPE	*IgG*
CONTROL	*Breast, Breast Lobular Carcinoma*
LOCALIZATION	*Membranous, Cytoplasmic*

CAT. #	PRESENTATION	VOL/QTY
BSB 2077	Tinto Prediluted	3.0 ml
BSB 2078	Tinto Prediluted	7.0 ml
BSB 2079	Tinto Prediluted	15.0 ml
BSB 2080	Concentrated	0.1 ml
BSB 2081	Concentrated	0.5 ml
BSB 2082	Concentrated	1.0 ml
BSB 2083	control slides	5

Parathyroid Hormone (PTH)



IHC of Parathyroid Hormone on an FFPE Parathyroid Tissue

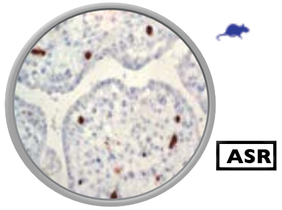
Parathyroid hormone (PTH), parathormone or parathyrin, is secreted by the chief cells of the parathyroid glands as a polypeptide containing 84 amino acids. It acts to increase the concentration of calcium (Ca2+) in the blood, whereas Calcitonin (a hormone produced by the parafollicular cells (C cells) of the thyroid gland) acts to decrease calcium concentration. PTH acts to increase the concentration of calcium in the blood by acting upon the parathyroid hormone 1 receptor (high levels in bone and kidney) and the parathyroid hormone 2 receptor (high levels in the central nervous system, pancreas, testis, and placenta). PTH half-life is approximately 4 minutes.

Anti-PTH antibody is also useful to distinguish parathyroid hyperplasia/neoplasms from thyroid and metastatic neoplasms. If the patient's hypercalcemic status is not known, PTH immunohistochemistry is helpful, especially if clear cell parathyroid carcinomas are nonsecretory and there is no abnormality in mineral metabolism. The other instance in which anti-PTH antibodies are useful is in the consideration of parathyroid carcinomas located primarily in the anterior mediastinum. In this situation distinction from primary thymic metastatic carcinomas, non-Hodgkin's lymphoma and germ cell tumors is necessary.

ANTIBODY TYPE	*Mouse Monoclonal*
CLONE	*BSB-24*
ISOTYPE	*IgG1*
CONTROL	*Parathyroid*
LOCALIZATION	*Cytoplasmic, Membranous*

CAT. #	PRESENTATION	VOL/QTY
BSB 2084	Tinto Prediluted	3.0 ml
BSB 2085	Tinto Prediluted	7.0 ml
BSB 2086	Tinto Prediluted	15.0 ml
BSB 2087	Concentrated	0.1 ml
BSB 2088	Concentrated	0.5 ml
BSB 2089	Concentrated	1.0 ml
BSB 2090	control slides	5

Parvovirus B19



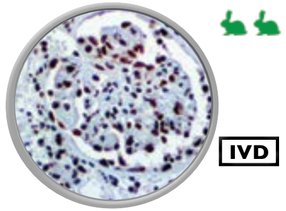
IHC of Parvovirus B19 on a FFPE Placenta Tissue

Parvovirus B19 belongs to the Parvoviridae family of small DNA viruses. It is classified as Erythrovirus because of its capability to invade red blood cell precursors in the bone marrow. Anti-Parvovirus antibody targets the capsid proteins VP1 and VP2 on Human Parvovirus.

ANTIBODY TYPE	*Mouse Monoclonal*
CLONE	*R92F6*
ISOTYPE	*IgG1*
CONTROL	*Infected Tissue*
LOCALIZATION	*Nuclear, Cytoplasmic*

CAT. #	PRESENTATION	VOL/QTY
BSB 5854	Tinto Prediluted	3.0 ml
BSB 5855	Tinto Prediluted	7.0 ml
BSB 5856	Tinto Prediluted	15.0 ml
BSB 5857	Concentrated	0.1 ml
BSB 5858	Concentrated	0.5 ml
BSB 5859	Concentrated	1.0 ml
BSB 5860	control slides	5

PAX-2



IHC of PAX-2 on an FFPE Kidney Tissue

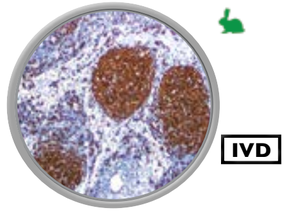
PAX-2 is a homeogene strongly expressed during kidney development. PAX-2 gene is expressed in the metanephric mesenchyma after ureter bud induction and is a key factor for the mesenchyma-epithelium conversion. Animals transgenic for PAX-2 have severe renal abnormalities and cysts but no solid tumoral features.

Anti-PAX-2 can be used to distinguish Ovarian Serous Papillary Carcinoma (PAX-2 positive) from Primary Breast Carcinoma (PAX-2 negative). It can also be used to distinguish Clear Cell Renal Carcinoma (positive) from Hepatocellular Carcinoma (negative).

ANTIBODY TYPE	*Rabbit Polyclonal*
CLONE	*N/A*
ISOTYPE	*IgG*
CONTROL	*Renal Cell Carcinoma*
LOCALIZATION	*Nuclear*

CAT. #	PRESENTATION	VOL/QTY
BSB 2091	Tinto Prediluted	3.0 ml
BSB 2092	Tinto Prediluted	7.0 ml
BSB 2093	Tinto Prediluted	15.0 ml
BSB 2094	Concentrated	0.1 ml
BSB 2095	Concentrated	0.5 ml
BSB 2096	Concentrated	1.0 ml
BSB 2097	control slides	5

PAX-5, RMab



IHC of PAX-5 on an FFPE Kidney Tissue

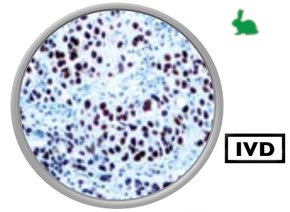
The PAX proteins are important regulators in early development, and alterations in the expression of their genes are thought to contribute to neoplastic transformation. The PAX-5 gene encodes the B-cell lineage-specific activator protein (BSAP) that is expressed at early, but not late, stages of B-cell differentiation. Its expression has also been detected in developing CNS and testis; therefore, PAX-5 gene product may not only play an important role in B-cell differentiation, but also in neural development and spermatogenesis.

PAX-5 expression is not only continuously required for B-cell lineage commitment during early B-cell development but also for B-cell lineage maintenance. PAX-5 is found in most cases of mature and precursor B-cell Non-Hodgkin's Lymphomas/Leukemias. PAX-5 is not detected in Multiple Myeloma and solitary Plasmacytoma, making it useful for such differentiation. Diffuse Large B-cell Lymphomas do express PAX-5, except for those with terminal B-cell differentiation. T-cell neoplasms do not stain with anti-PAX-5; however, there is a strong association with CD20 expression.

ANTIBODY TYPE	*Rabbit Monoclonal*
CLONE	*RBT-PAX5*
ISOTYPE	*IgG*
CONTROL	*Tonsil, Lymph Node*
LOCALIZATION	*Nuclear*

CAT. #	PRESENTATION	VOL/QTY
BSB 5861	Tinto Prediluted	3.0 ml
BSB 5862	Tinto Prediluted	7.0 ml
BSB 5863	Tinto Prediluted	15.0 ml
BSB 5864	Concentrated	0.1 ml
BSB 5865	Concentrated	0.5 ml
BSB 5866	Concentrated	1.0 ml
BSB 5867	control slides	5

PAX-8, RMab



IHC of PAX-8 on an FFPE Ovarian Carcinoma Tissue

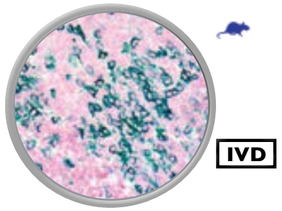
PAX-8 is expressed in the thyroid (and associated carcinomas), non-ciliated mucosal cells of the fallopian tubes and simple ovarian inclusion cysts, but not normal ovarian surface epithelial cells. PAX-8 is expressed in a high percentage of ovarian serous, endometrioid, and clear cell carcinomas, but only rarely in primary ovarian mucinous adenocarcinomas. Studies have also found PAX-8 expression in renal tubules as well as renal carcinoma, nephroblastoma and seminoma. Normal lung and lung carcinomas do not express PAX-8. Similarly, the absence of expression of PAX-8 in breast and other non-GYN carcinomas other than those primary to the thyroid indicates that PAX-8 is an important new marker of ovarian cancer and a useful marker for the differential diagnoses in lung and neck tumors, or tumors at distant sites where primary lung carcinoma or thyroid carcinoma are possibilities.

PAX-8, combined with organ system-specific markers such as uroplakin, mammaglobin, and TTF-1 can be a very useful panel to determine the primary site of invasive micropapillary carcinomas of ovary from bladder, lung, and breast.

ANTIBODY TYPE	*Rabbit Monoclonal*
CLONE	*ZR-1*
ISOTYPE	*IgG*
CONTROL	*Ovary, Thyroid*
LOCALIZATION	*Nuclear*

CAT. #	PRESENTATION	VOL/QTY
BSB 2098	Tinto Prediluted	3.0 ml
BSB 2099	Tinto Prediluted	7.0 ml
BSB 2100	Tinto Prediluted	15.0 ml
BSB 2101	Concentrated	0.1 ml
BSB 2102	Concentrated	0.5 ml
BSB 2103	Concentrated	1.0 ml
BSB 2104	control slides	5

PD-1/CD279



IHC of PD-1 on an FFPE Tonsil Tissue

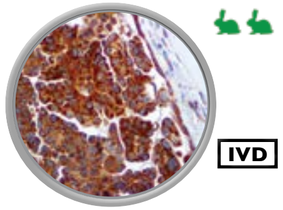
Programmed Death 1, (PD-1 or CD279), is a Type I membrane protein comprised of 268 amino acids. PD-1 is a member of the extended CD28/CTLA-4 family of T-cell regulators. PD-1 is expressed on the surface of activated T-cells, B-cells, and macrophages. In comparison to CTLA-4, PD-1 more broadly negatively regulates immune responses.

New data suggests that expression of PD-L1 on tumor cells inhibits anti-tumor activity through engagement of PD-1 on effector T-cells. Expression of PD-L1 on tumors is correlated with reduced survival in esophageal, pancreatic and other types of cancers, highlighting the relevance of exploring the PD-1 pathway as a target for immunotherapy. Studies have found that PD-1 is expressed on most T-cells and a small subset of B-cells in the light zone of germinal centers, but not elsewhere in the tonsil. On that basis, it was postulated that PD-1 may play a role in the process of clonal selection of centrocytes, which occurs in this subanatomic site in germinal centers. PD-1 is a new marker of Angioimmunoblastic Lymphoma and suggests a unique cell of origin for this neoplasm. Unlike CD10 and bcl-6, PD-1 is expressed by few B-cells, so it may be a more specific and useful diagnostic marker in Angioimmunoblastic Lymphoma. It also seems to stain a greater percentage of CD3-positive neoplastic cells in Angioimmunoblastic Lymphoma than either CD10 or bcl-6.

ANTIBODY TYPE *Mouse Monoclonal*
CLONE *MRQ-22*
ISOTYPE *IgG1*
CONTROL *Tonsil, Lymph Node*
LOCALIZATION *Cytoplasmic*

CAT. #	PRESENTATION	VOL/QTY
BSB 6212	Tinto Prediluted	3.0 ml
BSB 6213	Tinto Prediluted	7.0 ml
BSB 6214	Tinto Prediluted	15.0 ml
BSB 6215	Concentrated	0.1 ml
BSB 6216	Concentrated	0.5 ml
BSB 6217	Concentrated	1.0 ml
BSB 6218	control slides	5

PDGFR-B



IHC of PDGFR-B on an FFPE Ovarian Carcinoma Tissue

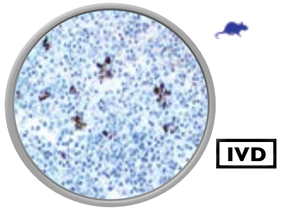
Beta-type Platelet-Derived Growth Factor Receptor is a protein that in humans is encoded by the PDGFRB gene. This gene encodes a cell surface tyrosine kinase receptor for members of the Platelet-Derived Growth Factor family (PDGF), which is a mitogen for mesenchyme- and glia-derived cells. PDGF consists of two chains, A and B, which dimerize to form functionally distinct isoforms, PGDF-AA, PDGF-AB and PDGF-BB.

Translocation of the PDGFR gene with the Tel gene is linked to Chronic Myelomonocytic Leukemia (CMML), a myelodysplastic syndrome, and demonstrates the oncogenic potential of the PDGF receptors. A translocation between chromosomes 5 and 12, that fuses this gene to that of the translocation, ETV6, leukemia gene, results in chronic myeloproliferative disorder with eosinophilia.

ANTIBODY TYPE *Rabbit Polyclonal*
CLONE *N/A*
ISOTYPE *IgG*
CONTROL *Kidney, Ovarian Carcinoma, Skin*
LOCALIZATION *Cytoplasmic, Membranous*

CAT. #	PRESENTATION	VOL/QTY
BSB 2349	Tinto Prediluted	3.0 ml
BSB 2350	Tinto Prediluted	7.0 ml
BSB 2351	Tinto Prediluted	15.0 ml
BSB 2352	Concentrated	0.1 ml
BSB 2353	Concentrated	0.5 ml
BSB 2354	Concentrated	1.0 ml
BSB 2355	control slides	5

Perforin



IHC of Perforin on an FFPE Lymphoma Tissue

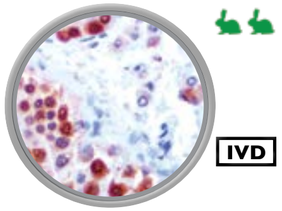
Perforin is a cytolytic protein found in the granules of Cytotoxic T lymphocytes and NK cells. Upon degranulation, perforin inserts itself into the target cell's plasma membrane, forming a pore. It enables granzymes to enter the target cells and activate apoptosis, the cell death program. Although some investigators report a cytolytic potential of CD4+ T cells, it appears more likely that CD8+ T cells are the major effector population in Th1- associated inflammatory skin diseases. The role of perforin-mediated cytotoxicity has been demonstrated in various autoimmune diseases. In vitro and in vivo studies suggest that the cytotoxicity of CTLs may be mediated by cytotoxic granules in certain inflammatory diseases in humans. In addition, it seems that T-cell cytotoxicity against keratinocytes is mediated by perforin in some inflammatory skin diseases.

Other authors suggest that perforin may have a dual role in alloimmune response (organ transplant applications). In one regard, it has a cytolytic function in acute rejection, and, in contrast, it may be responsible for downregulating both CD4- and CD8-mediated alloimmune response.

ANTIBODY TYPE *Mouse Monoclonal*
CLONE *5B10*
ISOTYPE *IgG1*
CONTROL *Spleen*
LOCALIZATION *Cytoplasmic*

CAT. #	PRESENTATION	VOL/QTY
BSB 2105	Tinto Prediluted	3.0 ml
BSB 2106	Tinto Prediluted	7.0 ml
BSB 2107	Tinto Prediluted	15.0 ml
BSB 2108	Concentrated	0.1 ml
BSB 2109	Concentrated	0.5 ml
BSB 2110	Concentrated	1.0 ml
BSB 2111	control slides	5

PGP 9.5



IHC of PGP 9.5 on an FFPE Testicle Tissue

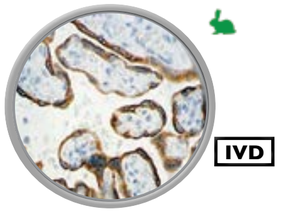
Protein gene product 9.5 (PGP 9.5), also known as ubiquitin carboxyl-terminal hydrolase-1 (UCH-L1), is a 27-kDa protein originally isolated from whole brain extracts. Although PGP9.5 expression in normal tissues was originally felt to be strictly confined to neurons and neuroendocrine cells, it has been subsequently documented in distal renal tubular epithelium, spermatogonia, Leydig cells, oocytes, melanocytes, prostatic secretory epithelium, ejaculatory duct cells, epididymis, mammary epithelial cells, Merkel cells, and dermal fibroblasts.

Immunostaining of a plethora of different mesenchymal neoplasms with this antibody has been demonstrated.

ANTIBODY TYPE *Rabbit Polyclonal*
CLONE *N/A*
ISOTYPE *IgG*
CONTROL *Nerve Tissue, Bowel Wall*
LOCALIZATION *Cytoplasmic*

CAT. #	PRESENTATION	VOL/QTY
BSB 2112	Tinto Prediluted	3.0 ml
BSB 2113	Tinto Prediluted	7.0 ml
BSB 2114	Tinto Prediluted	15.0 ml
BSB 2115	Concentrated	0.1 ml
BSB 2116	Concentrated	0.5 ml
BSB 2117	Concentrated	1.0 ml
BSB 2118	control slides	5

PLAP, RMab



IHC of PLAP on an FFPE Placenta Tissue

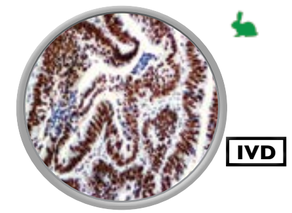
Placental Alkaline Phosphatase (PLAP) is found in trophoblast cells of normal mature human placenta, Seminomas of testis and Ovarian Carcinomas. Detection of alkaline phosphatase in serum is a marker for Ovarian and Testicular Cancer. This antibody reacts with a membrane-bound isoenzyme of placental alkaline phosphatase occurring in the placenta during the 3rd trimester of gestation.

This antibody immunoreacts with Germ Cell Tumors and can discriminate between these and other neoplasms. Somatic neoplasms (e.g., breast, gastrointestinal, prostatic and urinary cancers) may also immunoreact with antibodies to PLAP. PLAP positivity, in conjunction with keratin negativity, favors Seminoma over Carcinoma. Germ Cell Tumors are usually keratin positive but they regularly fail to stain with EMA, whereas most Carcinomas stain with anti-EMA. This antibody has shown cross-reaction with human intestinal alkaline phosphatase.

ANTIBODY TYPE *Rabbit Monoclonal*
CLONE *EP194**
ISOTYPE *IgG*
CONTROL *Placenta*
LOCALIZATION *Cytoplasmic*

CAT. #	PRESENTATION	VOL/QTY
BSB 5868	Tinto Prediluted	3.0 ml
BSB 5869	Tinto Prediluted	7.0 ml
BSB 5870	Tinto Prediluted	15.0 ml
BSB 5871	Concentrated	0.1 ml
BSB 5872	Concentrated	0.5 ml
BSB 5873	Concentrated	1.0 ml
BSB 5874	control slides	5

PMS2, RMab



IHC of PMS2 on an FFPE Colon Carcinoma Tissue

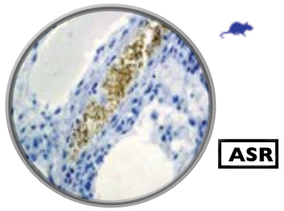
PMS2 is a gene that encodes for DNA repair proteins involved in mismatch repair. Carriers of the mismatch repair gene mutations have a high lifetime risk of developing Hereditary Non-Polyposis Colon Cancer (HNPCC) and several other cancers including endometrial cancer due to microsatellite instability (MSI) caused by accumulation of DNA replication errors in proliferating cells.

Along with MLH1, MSH2 and MSH6, PMS2 is helpful in diagnosing MSI. Tumors with low-level MSI show unfavorable pathological characteristics compared to tumors with none and tumors with high-level MSI.

ANTIBODY TYPE *Rabbit Monoclonal*
CLONE *EP51**
ISOTYPE *IgG*
CONTROL *Colon Mucosa, Colon Carcinoma*
LOCALIZATION *Nuclear*

CAT. #	PRESENTATION	VOL/QTY
BSB 2119	Tinto Prediluted	3.0 ml
BSB 2120	Tinto Prediluted	7.0 ml
BSB 2121	Tinto Prediluted	15.0 ml
BSB 2122	Concentrated	0.1 ml
BSB 2123	Concentrated	0.5 ml
BSB 2124	Concentrated	1.0 ml
BSB 2125	control slides	5

Pneumocystis Carinii



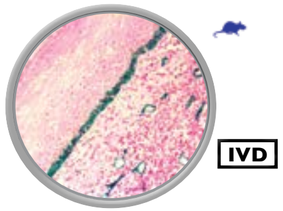
IHC of Pneumocystis on an FFPE Lung Tissue

Anti Pneumocystis carinii antibody reacts with an epitope on the yeast-like fungal microorganism, Pneumocystis carinii. that is resistant to formalin, picric acid, paraffin, as well as alcohol and xylene. No cross-reactivity has been demonstrated with other fungi or parasitic organisms.

ANTIBODY TYPE *Mouse Monoclonal*
CLONE *3F6*
ISOTYPE *IgM*
CONTROL *Infected Tissue*
LOCALIZATION *Membranous*

CAT. #	PRESENTATION	VOL/QTY
BSB 5875	Tinto Prediluted	3.0 ml
BSB 5876	Tinto Prediluted	7.0 ml
BSB 5877	Tinto Prediluted	15.0 ml
BSB 5878	Concentrated	0.1 ml
BSB 5879	Concentrated	0.5 ml
BSB 5880	Concentrated	1.0 ml
BSB 5881	control slides	5

Podoplanin/D2-40



IHC of Podoplanin/D2-40 on an FFPE Tonsil Tissue

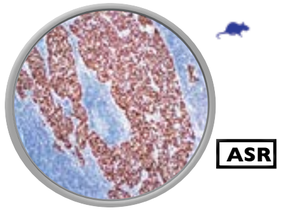
Podoplanin is a transmembrane mucoprotein (38 kDa) recognized by the D2-40 monoclonal antibody. Podoplanin is specifically expressed in the endothelium of lymphatic capillaries but not in the blood vasculature. In normal skin and kidney, podoplanin is co-localized with VEGFR3/FLT4, another marker for lymphatic endothelial cells.

Podoplanin is selectively expressed in lymphatic endothelium as well as Lymphangiomas, Kaposi's Sarcomas and in subset Angiosarcomas with probable lymphatic differentiation. Podoplanin has also been shown to be expressed in Epithelioid Mesotheliomas, Hemangioblastomas and Seminomas.

ANTIBODY TYPE *Mouse Monoclonal*
CLONE *D2-40*
ISOTYPE *IgG1*
CONTROL *Tonsil, Lymph Node, Lymphangioma*
LOCALIZATION *Cytoplasmic*

CAT. #	PRESENTATION	VOL/QTY
BSB 6064	Tinto Prediluted	3.0 ml
BSB 6065	Tinto Prediluted	7.0 ml
BSB 6066	Tinto Prediluted	15.0 ml
BSB 6067	Concentrated	0.1 ml
BSB 6068	Concentrated	0.5 ml
BSB 6069	Concentrated	1.0 ml
BSB 6070	control slides	5

Progesterone Receptor



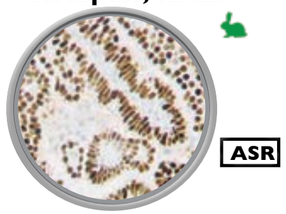
IHC of Progesterone Receptor on an FFPE Breast Carcinoma Tissue

The progesterone receptor (PR) also known as NR3C3 (nuclear receptor subfamily 3, group C, member 3), is an intracellular steroid receptor that specifically binds progesterone. PR is encoded by a single gene PGR residing on chromosome 11q22; it has two main forms, A and B, which differ in their molecular weight. Like all steroid receptors, the progesterone receptor has an amino and a carboxyl terminal, and between them the regulatory domain, a DNA binding domain, the hinge section, and the hormone binding domain.

ANTIBODY TYPE *Mouse Monoclonal*
CLONE *BSB2*
ISOTYPE *IgG1*
CONTROL *Breast Carcinoma*
LOCALIZATION *Nuclear*

CAT. #	PRESENTATION	VOL/QTY
BSB 2126	Tinto Prediluted	3.0 ml
BSB 2127	Tinto Prediluted	7.0 ml
BSB 2128	Tinto Prediluted	15.0 ml
BSB 2129	Concentrated	0.1 ml
BSB 2130	Concentrated	0.5 ml
BSB 2131	Concentrated	1.0 ml
BSB 2132	control slides	5

Progesterone Receptor, RMab



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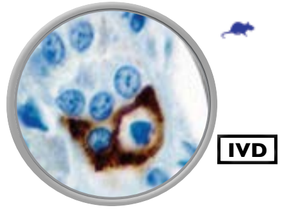
ANTIBODY TYPE *Rabbit Monoclonal*
CLONE *RBT22*
ISOTYPE *IgG*
CONTROL *Breast Carcinoma*
LOCALIZATION *Nuclear*

CAT. #	PRESENTATION	VOL/QTY
BSB 5882	Tinto Prediluted	3.0 ml
BSB 5883	Tinto Prediluted	7.0 ml
BSB 5884	Tinto Prediluted	15.0 ml
BSB 5885	Concentrated	0.1 ml
BSB 5886	Concentrated	0.5 ml
BSB 5887	Concentrated	1.0 ml
BSB 5888	control slides	5

Prolactin



IHC of Prolactin on an FFPE Pituitary Tissue

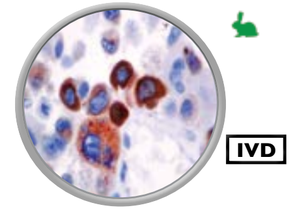
Prolactin is a peptide hormone primarily associated with lactation. It is synthesized and secreted by lactotrope cells in the adenohypophysis (anterior pituitary gland). It is also produced in other tissues including the breast and the decidua. Pituitary prolactin secretion is regulated by neuroendocrine neurons in the hypothalamus, most importantly by neurosecretory dopamine neurons of the arcuate nucleus, which inhibit prolactin secretion.

Prolactin is a useful marker in classification of pituitary tumors and the study of pituitary disease. It reacts with lactotrope cells.

ANTIBODY TYPE *Mouse Monoclonal*
CLONE *PRL02*
ISOTYPE *IgG1/K*
CONTROL *Normal Pituitary*
LOCALIZATION *Cytoplasmic*

CAT. #	PRESENTATION	VOL/QTY
BSB 5889	Tinto Prediluted	3.0 ml
BSB 5890	Tinto Prediluted	7.0 ml
BSB 5891	Tinto Prediluted	15.0 ml
BSB 5892	Concentrated	0.1 ml
BSB 5893	Concentrated	0.5 ml
BSB 5894	Concentrated	1.0 ml
BSB 5895	control slides	5

Prolactin, RMab



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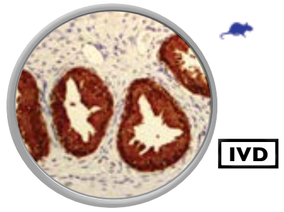
Prolactin is a useful marker in classification of pituitary tumors and the study of pituitary disease. It reacts with lactotrope cells.

ANTIBODY TYPE *Rabbit Monoclonal*
CLONE *EP193**
ISOTYPE *IgG*
CONTROL *Normal Pituitary*
LOCALIZATION *Cytoplasmic*

CAT. #	PRESENTATION	VOL/QTY
BSB 2133	Tinto Prediluted	3.0 ml
BSB 2134	Tinto Prediluted	7.0 ml
BSB 2135	Tinto Prediluted	15.0 ml
BSB 2136	Concentrated	0.1 ml
BSB 2137	Concentrated	0.5 ml
BSB 2138	Concentrated	1.0 ml
BSB 2139	control slides	5

PSA



IHC of Prostate-Specific Antigen on an FFPE Prostatic Adenocarcinoma Tissue

Prostate-specific antigen (PSA) is a protein produced by the cells of the prostate gland. PSA is present in small quantities in the serum of normal men, and is often elevated in the presence of prostate cancer and in other prostate disorders. Higher than normal levels of PSA are associated with both localized and metastatic prostate cancer.

The PSA antibody recognizes primary and metastatic prostatic neoplasms but not tumors of nonprostatic origin. The antigen is a 33-34 kDa glycoprotein that is restricted to cells of prostatic origin. An immunohistochemical study showed more than 95% of prostatic carcinomas stained with PSA. PSA is demonstrable in the cytoplasm of acinar and ductal cells of normal or malignant prostate tissue.

ANTIBODY TYPE *Mouse Monoclonal*
CLONE *BSB7*
ISOTYPE *IgG1/K*
CONTROL *Prostate*
LOCALIZATION *Cytoplasmic*

CAT. #	PRESENTATION	VOL/QTY
BSB 5896	Tinto Prediluted	3.0 ml
BSB 5897	Tinto Prediluted	7.0 ml
BSB 5898	Tinto Prediluted	15.0 ml
BSB 5899	Concentrated	0.1 ml
BSB 5900	Concentrated	0.5 ml
BSB 5901	Concentrated	1.0 ml
BSB 5902	control slides	5

PSA, RMab

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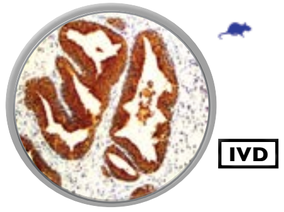
ANTIBODY TYPE *Rabbit Monoclonal*
CLONE *RBT-PSA*
ISOTYPE *IgG*
CONTROL *Prostate*
LOCALIZATION *Cytoplasmic*

CAT. #	PRESENTATION	VOL/QTY
BSB 2140	Tinto Prediluted	3.0 ml
BSB 2141	Tinto Prediluted	7.0 ml
BSB 2142	Tinto Prediluted	15.0 ml
BSB 2143	Concentrated	0.1 ml
BSB 2144	Concentrated	0.5 ml
BSB 2145	Concentrated	1.0 ml
BSB 2146	control slides	5

PSAP



IHC of PSAP on an FFPE Prostate Tissue

Prostatic specific acid phosphatase (PSAP) is an enzyme produced by the prostate. It may be found in increased amounts in men who have prostate cancer or other diseases. The highest levels of acid phosphatase are found in metastasized prostate cancer. Diseases of the bone, such as Paget's disease or hyperparathyroidism, diseases of blood cells, (such as Sickle-Cell Disease), Multiple Myeloma or Lysosomal Storage Diseases, (such as Gaucher's disease), will show moderately increased levels. Certain medications can cause temporary increases or decreases in acid phosphatase levels. Manipulation of the prostate gland through massage, biopsy or rectal exam before a test may increase the levels of PSAP.

This antibody reacts with prostatic specific acid phosphatase in the glandular epithelium of the normal and Hyperplastic Prostate, Carcinoma of the prostate and metastatic cells of Prostatic Carcinoma. This marker may be helpful in pinpointing the site of origin in cases of Metastatic Carcinoma of the prostate, and is considered a more sensitive marker than PSA. However, it also offers less specificity.

ANTIBODY TYPE *Mouse Monoclonal*
CLONE *PASE/4LJ*
ISOTYPE *IgG1*
CONTROL *Prostate*
LOCALIZATION *Cytoplasmic*

CAT. #	PRESENTATION	VOL/QTY
BSB 5903	Tinto Prediluted	3.0 ml
BSB 5904	Tinto Prediluted	7.0 ml
BSB 5905	Tinto Prediluted	15.0 ml
BSB 5906	Concentrated	0.1 ml
BSB 5907	Concentrated	0.5 ml
BSB 5908	Concentrated	1.0 ml
BSB 5909	control slides	5

PSAP, RMab

IHC of PSAP on an FFPE Prostate Tissue

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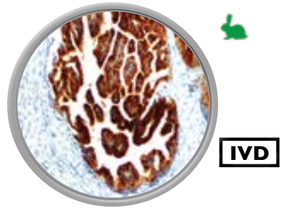
This antibody reacts with prostatic specific acid phosphatase in the glandular epithelium of the normal and Hyperplastic Prostate, Carcinoma of the prostate and metastatic cells of Prostatic Carcinoma. This marker may be helpful in pinpointing the site of origin in cases of Metastatic Carcinoma of the prostate, and is considered a more sensitive marker than PSA. However, it also offers less specificity.

ANTIBODY TYPE *Rabbit Monoclonal*
CLONE *EP53**
ISOTYPE *IgG*
CONTROL *Prostate*
LOCALIZATION *Cytoplasmic*

CAT. #	PRESENTATION	VOL/QTY
BSB 2147	Tinto Prediluted	3.0 ml
BSB 2148	Tinto Prediluted	7.0 ml
BSB 2149	Tinto Prediluted	15.0 ml
BSB 2150	Concentrated	0.1 ml
BSB 2151	Concentrated	0.5 ml
BSB 2152	Concentrated	1.0 ml
BSB 2153	control slides	5

PSMA, RMab



IHC of PSMA on an FFPE Prostate Adenocarcinoma Tissue

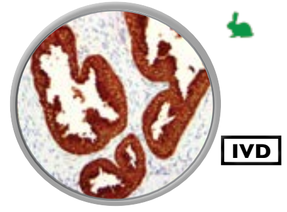
PSMA, prostate specific membrane antigen, is a Type 2 integral membrane glycoprotein found in prostate and a few other tissues. Three functionally-distinct proteins are encoded, including folylpoly-gamma-glutamate carboxypeptidase in the intestine, N-acetylated alpha-linked acidic dipeptidase 1 in the brain and prostate-specific membrane antigen in the prostate. A mutation in the intestinal form may be associated with impaired intestinal absorption of dietary folates, resulting in low blood folate levels and consequent hyperhomocysteinemia. The form expressed in the brain may be involved in a number of pathological conditions associated with glutamate cytotoxicity. The prostate form is up-regulated in cancerous cells and is used as an effective diagnostic and prognostic indicator of prostate cancer. This gene likely arose from a duplication event of a nearby chromosomal region. Alternative splicing gives rise to multiple transcript variants.

Although PSMA expression is highest in the prostate, detectable levels of protein are also found in the small intestine and the brain. PSMA is expressed in prostate cancer cells as a noncovalently associated homodimer. Using a secreted form of the protein, it has been demonstrated that the extracellular domain is sufficient for dimerization and that dimerization is required for enzymatic activity. When used as an immunogen, dimeric (but not monomeric) PSMA is capable of efficiently eliciting antibodies that recognize PSMA-expressing tumor cells. It is a possible therapeutic target for prostate cancer and it is being used (with radioactive antibodies) to image prostate tissue.

ANTIBODY TYPE *Rabbit Monoclonal*
CLONE *EP192**
ISOTYPE *IgG*
CONTROL *Prostate*
LOCALIZATION *Cytoplasmic*

CAT. #	PRESENTATION	VOL/QTY
BSB 6345	Tinto Prediluted	3.0 ml
BSB 6346	Tinto Prediluted	7.0 ml
BSB 6347	Tinto Prediluted	15.0 ml
BSB 6348	Concentrated	0.1 ml
BSB 6349	Concentrated	0.5 ml
BSB 6350	Concentrated	1.0 ml
BSB 6351	control slides	5

PSP94/MSMB, RMab



IHC of PSP94/MSMB on an FFPE Prostate Tissue

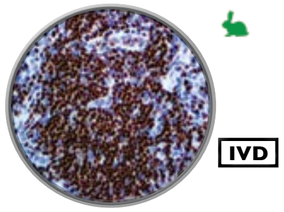
Beta-microseminoprotein (MSMB) also called prostate secretory protein of 94 amino acids (PSP94), is one of the three predominant proteins secreted by the prostate gland and found in human seminal fluid along with prostate-specfic antigen and prostatic specific acid phosphatase. Using exogenous MSMB, in vitro and in vivo studies indicate that MSMB may have several anti-tumor effects on prostate tumor cells.

MSMB expression is high in normal prostate epithelial cells, but is decreased in prostate cancer cells. Studies have shown that MSMB is a strong independent factor indicating favorable outcome after radical prostatectomy for localized prostate cancer.

ANTIBODY TYPE *Rabbit Monoclonal*
CLONE *EP203**
ISOTYPE *IgG*
CONTROL *Prostate*
LOCALIZATION *Cytoplasmic*

CAT. #	PRESENTATION	VOL/QTY
BSB 2419	Tinto Prediluted	3.0 ml
BSB 2420	Tinto Prediluted	7.0 ml
BSB 2421	Tinto Prediluted	15.0 ml
BSB 2422	Concentrated	0.1 ml
BSB 2423	Concentrated	0.5 ml
BSB 2424	Concentrated	1.0 ml
BSB 2425	control slides	5

PU.1, RMab



IHC of PU.1 on an FFPE Lymphoma Tissue

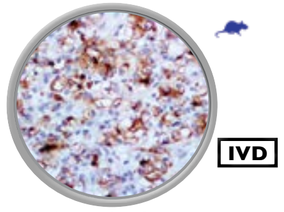
PU.1 is a member of the Ets family of transcription factors and is required for the development of multiple hematopoietic lineages. It plays a pivotal role in normal myeloid differentiation and regulates the expression of immunoglobulin and other genes that are important for B-cell development. It is expressed in the myeloid lineage and in immature as well as mature B lymphocytes, with the exception of plasma cells.

PU.1 is expressed in germinal center B-cells and mantle B-cells. The antibody is positive in various lymphomas including B-Chronic Lymphocytic Leukemia, Mantle Cell Lymphoma, Follicular Lymphoma, Marginal Zone Lymphoma, Burkitt Lymphoma, Diffuse Large Cell Lymphoma, Diffuse Large B-cell Lymphoma, T-cell rich B-cell Lymphoma, Nodular Lymphocyte Predominant Hodgkin Lymphoma. It has been demonstrated that a high level of expression of GC antigens (including PU.1) has a positive association with longer overall survival and progression free survival in the case of Follicular Lymphoma.

ANTIBODY TYPE *Rabbit Monoclonal*
CLONE *EP18**
ISOTYPE *IgG*
CONTROL *Tonsil, Lymph Node*
LOCALIZATION *Nuclear*

CAT. #	PRESENTATION	VOL/QTY
BSB 2154	Tinto Prediluted	3.0 ml
BSB 2155	Tinto Prediluted	7.0 ml
BSB 2156	Tinto Prediluted	15.0 ml
BSB 2157	Concentrated	0.1 ml
BSB 2158	Concentrated	0.5 ml
BSB 2159	Concentrated	1.0 ml
BSB 2160	control slides	5

Renal Cell Carcinoma



IHC of Renal Cell Carcinoma on an FFPE Chromophobe RCC Tissue

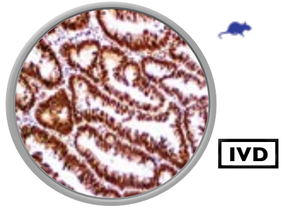
Renal Cell Carcinoma, also known as a Gurnistical Tumor, is the most common form of kidney cancer arising from the renal tubule. It is also the most common type of kidney cancer in adults. Initial treatment is surgery because it is notoriously resistant to radiation therapy and chemotherapy, although some cases respond to immunotherapy.

Renal Cell Carcinoma antibody recognizes a 200 kDa glycoprotein localized in the brush border of the proximal renal tubule. This antibody immunoreacts with approximately 90% of Primary Renal Cell Carcinomas and approximately 85% of Metastatic Renal Cell Carcinomas. Other tumors that may react with this antibody are Parathyroid Adenoma, an occasional Breast Carcinoma. Nephroblastoma, Oncocytoma, Mesoblastic Nephroma, Transitional Cell Carcinoma, and Angiomyolipoma are not labeled with this antibody.

ANTIBODY TYPE *Mouse Monoclonal*
CLONE *PN-15*
ISOTYPE *IgG1/K*
CONTROL *Kidney, Renal Cell Carcinoma*
LOCALIZATION *Cytoplasmic, Membranous*

CAT. #	PRESENTATION	VOL/QTY
BSB 5910	Tinto Prediluted	3.0 ml
BSB 5911	Tinto Prediluted	7.0 ml
BSB 5912	Tinto Prediluted	15.0 ml
BSB 5913	Concentrated	0.1 ml
BSB 5914	Concentrated	0.5 ml
BSB 5915	Concentrated	1.0 ml
BSB 5916	control slides	5

Retinoblastoma/Rb



IHC of Retinoblastoma on an FFPE Colon Carcinoma Tissue

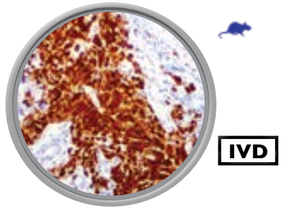
The retinoblastoma protein (Rb) is a tumor-suppressor protein that is dysfunctional in many types of cancer. One highly studied function of Rb is to prevent excessive cell growth by inhibiting cell-cycle progression until a cell is ready to divide. Rb prevents the cell from replicating damaged DNA by preventing its progression along the cell cycle through G1 into S.

Should an oncogenic protein (such as that produced by cells infected with high-risk types of human papillomaviruses, SV40 or Adenoviruses) bind and inactivate Rb, this can lead to cancer. Rb protein may act by regulating transcription; loss of its function leads to uncontrolled cell growth. Aberrations in the Rb gene have been implicated in cancers of breast, colon, prostate, kidney, nasopharynx, and Leukemia.

ANTIBODY TYPE *Mouse Monoclonal*
CLONE *1F8*
ISOTYPE *IgG1*
CONTROL *Colon, Breast Carcinoma*
LOCALIZATION *Nuclear*

CAT. #	PRESENTATION	VOL/QTY
BSB 6127	Tinto Prediluted	3.0 ml
BSB 6128	Tinto Prediluted	7.0 ml
BSB 6129	Tinto Prediluted	15.0 ml
BSB 6130	Concentrated	0.1 ml
BSB 6131	Concentrated	0.5 ml
BSB 6132	Concentrated	1.0 ml
BSB 6133	control slides	5

S-100



IHC of S-100 on an FFPE Intradermal Melanocytic Nevus Tissue

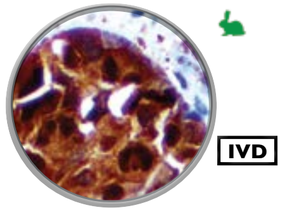
S-100 protein is a type of low-molecular weight protein found in vertebrates, characterized by two calcium-binding sites of the helix-loop-helix conformation. S-100 is normally present in cells derived from the neural crest (Schwann cells, melanocytes and glial cells), chondrocytes, adipocytes, myoepithelial cells, macrophages, Langerhans cells, dendritic cells, and keratinocytes. It may be present in some breast epithelial cells. Several members of the S-100 protein family are useful as markers for certain tumors and epidermal differentiation. The S-100 protein can be found in melanomas, 50% of Malignant Peripheral Nerve Sheath Tumors, and Clear Cell Sarcomas.

Almost all Malignant Melanomas and cases of Histiocytosis X are positive for S-100 protein. Despite the fact that S-100 protein is a ubiquitous substance, its demonstration is of great value in the identification of several neoplasms, particularly Melanomas.

ANTIBODY TYPE *Mouse Monoclonal*
CLONE *4C4.9*
ISOTYPE *IgG2a*
CONTROL *Melanoma*
LOCALIZATION *Cytoplasmic, Nuclear*

CAT. #	PRESENTATION	VOL/QTY
BSB 5917	Tinto Prediluted	3.0 ml
BSB 5918	Tinto Prediluted	7.0 ml
BSB 5919	Tinto Prediluted	15.0 ml
BSB 5920	Concentrated	0.1 ml
BSB 5921	Concentrated	0.5 ml
BSB 5922	Concentrated	1.0 ml
BSB 5923	control slides	5

S100A1, RMab



IHC of S100A1 on an FFPE Melanoma Tissue

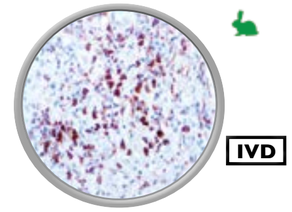
The S100A1 protein is a member of the S100 family of proteins containing 4 EF-hand calcium-binding motifs in its dimerized form. S100 protiens are localized in the cytoplasm and/or nucleus of a wide range of cells, and involved in the regulation of a number of cellular processes such as cell cycle progression and differentation. S100A1 may function in stimulation of Ca2+-induced Ca2+ release, inhibition of microtubule assembly and inhibition of protein kinase C-mediated phosphorylation.

In normal tissues, anti-S100A1 is expressed in cardiac muscle, skeletal muscle and neuronal cells. Reduced expression of S100A1 has been implicated in cardiomyopathies. It can also be useful in distinguishing between Renal Oncocytomas and Clear Cell Renal Cell Carcinomas (positive) and Papillary Renal Cell Carcinomas (positive) from Chromophobe Renal Cell Carcinomas (negative). It is a specific and sensitive marker for Nephrogenic Adenoma.

ANTIBODY TYPE *Rabbit Monoclonal*
CLONE *EP184**
ISOTYPE *IgG*
CONTROL *Renal Onocytomas, Clear Cell Carcinoma*
LOCALIZATION *Cytoplasmic, Nuclear*

CAT. #	PRESENTATION	VOL/QTY
BSB 2161	Tinto Prediluted	3.0 ml
BSB 2162	Tinto Prediluted	7.0 ml
BSB 2163	Tinto Prediluted	15.0 ml
BSB 2164	Concentrated	0.1 ml
BSB 2165	Concentrated	0.5 ml
BSB 2166	Concentrated	1.0 ml
BSB 2167	control slides	5

S100A8/MRP8, RMab



IHC of S100A8/MPR8 on an FFPE Kidney Transplant Tissue

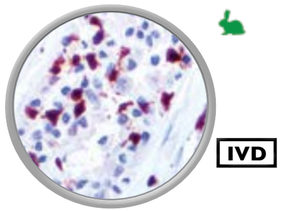
Myeloid Related Protein 8 (MRP8), also known as S100A8, is a calcium binding protein that belongs to the S100 family. By a Ca2+ dependent manner, S100A8/A9 forms Calprotectin, a heterodimeric inflammatory mediator of inflammation found in the cytoplasm of neutrophils and expressed on the membrane of monocytes. S100A8 is expressed during myeloid differentiation and chronic inflammations, and it is expressed constitutively or induced in epithelial cells during dermatose.

S100A8 is expressed in cells with myeloid origin, including granulocytes, monocytes and macrophages, and it is observed in blood granulocytes and monocytes. It is also expressed in infiltrate macrophages during inflammatory reactions, but not in normal tissue macrophages. S100A8 also reacts with activated microglial cells in human cerebral malaria. In tumors, positive staining of S100A8 has been observed in various cancers including pancreatic cancer, and it has been linked to inflammation-associated cancers.

ANTIBODY TYPE *Rabbit Monoclonal*
CLONE *EP90**
ISOTYPE *IgG*
CONTROL *Spleen, Chronic Inflammation*
LOCALIZATION *Cytoplasmic, Nuclear*

CAT. #	PRESENTATION	VOL/QTY
BSB 2356	Tinto Prediluted	3.0 ml
BSB 2357	Tinto Prediluted	7.0 ml
BSB 2358	Tinto Prediluted	15.0 ml
BSB 2359	Concentrated	0.1 ml
BSB 2360	Concentrated	0.5 ml
BSB 2361	Concentrated	1.0 ml
BSB 2362	control slides	5

S100A9, RMab



IHC of S100A9 on an FFPE Melanoma Tissue

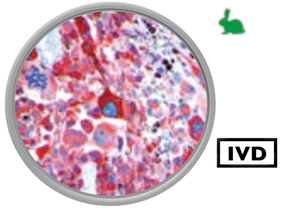
S100A9, also known as migration inhibitory factor-related protein 14 (MRP-14) or calgranulin-B is a member of the S100 family of proteins containing 2 EF hand calcium-binding motifs. S100 proteins are localized in the cytoplasm and/or nucleus of a wide range of cells, and involved in the regulation of a number of cellular processes such as cell cycle progression and differentation. S100A9 forms a heterodimer, Calprotectin, with S100A8 in a calcium-dependent manner. S100A9 may function in the inhibition of casein kinase.

S100A9 is expressed in granulocytes, monocytes in peripheral blood and in infiltrating macrophages in inflammatory sites, but not in normal tissue macrophages. Elevated plasma levels of S100A9 has been observed in inflammatory disorders such as chronic bronchitis, cystic fibrosis and rheumatoid arthritis. S100A9 is also detected in tumor cells in carcinomas of the liver, lung, breast and thyroid. It is correlated with tumor differentiation.

ANTIBODY TYPE *Rabbit Monoclonal*
CLONE *EP185**
ISOTYPE *IgG*
CONTROL *Liver, Lung, Breast and Thyroid Carcinomas*
LOCALIZATION *Cytoplasmic, Nuclear*

CAT. #	PRESENTATION	VOL/QTY
BSB 2168	Tinto Prediluted	3.0 ml
BSB 2169	Tinto Prediluted	7.0 ml
BSB 2170	Tinto Prediluted	15.0 ml
BSB 2171	Concentrated	0.1 ml
BSB 2172	Concentrated	0.5 ml
BSB 2173	Concentrated	1.0 ml
BSB 2174	control slides	5

S100 Beta, RMab



IHC of S100 Beta on an FFPE Melanoma Tissue

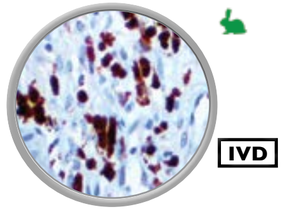
S100 calcium binding protein B or S100 Beta is a member of the S100 family. S100 proteins are localized in the cytoplasm and nucleus of a wide range of cells, and involved in the regulation of a number of cellular processes such as cell cycle progression and differentation. S100 Beta is abundant in glial cells of the central and peripheral nervous system, in melanocytes, chondrocytes, and adipocytes.

Anti-S100 Beta labels langerhans cells, histiocytes, epithelial, myoepithelial cells and integrating reticular cells of lymphoid tissue, and tumors originated from these cells. It is a useful marker for diagnosis of melanoma and tumors of the nervous system.

ANTIBODY TYPE *Rabbit Monoclonal*
CLONE *EP32**
ISOTYPE *IgG*
CONTROL *Melanoma*
LOCALIZATION *Cytoplasmic, Nuclear*

CAT. #	PRESENTATION	VOL/QTY
BSB 2175	Tinto Prediluted	3.0 ml
BSB 2176	Tinto Prediluted	7.0 ml
BSB 2177	Tinto Prediluted	15.0 ml
BSB 2178	Concentrated	0.1 ml
BSB 2179	Concentrated	0.5 ml
BSB 2180	Concentrated	1.0 ml
BSB 2181	control slides	5

S100P, RMab



IHC of S100P on an FFPE Melanoma Tissue

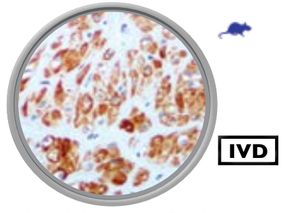
S100P is a member of the S100 family of proteins containing 2 EF-hand calcium binding motifs. S100 proteins are localized in the cytoplasm and/or nucleus of a wide range of cells, and involved in the regulation of a number of cellular processes such as cell cycle progression and differentation. S100P is expressed in various normal tissues including placenta, bladder, spleen, gastric and intenstinal mucosa. Overexpression of S100P has been detected in several cancers such as colon, prostate, pancreatic and lung carcinomas. It has been functionally implicated in carcinogenic processes.

S100P is an early development marker of pancreatic carcinogenesis and can be used as a marker for pancreatic ductal adenocarcinoma. It may also serve as a predictor of distant metastasis and poor survival in non-small cell lung carcinomas.

ANTIBODY TYPE *Rabbit Monoclonal*
CLONE *EP186**
ISOTYPE *IgG*
CONTROL *Colon, Prostate, Pancreatic and Lung Carcinoma*
LOCALIZATION *Nuclear, Cytoplasmic*

CAT. #	PRESENTATION	VOL/QTY
BSB 2182	Tinto Prediluted	3.0 ml
BSB 2183	Tinto Prediluted	7.0 ml
BSB 2184	Tinto Prediluted	15.0 ml
BSB 2185	Concentrated	0.1 ml
BSB 2186	Concentrated	0.5 ml
BSB 2187	Concentrated	1.0 ml
BSB 2188	control slides	5

Smoothelin



IHC of Smoothelin on an FFPE Uterus Tissue

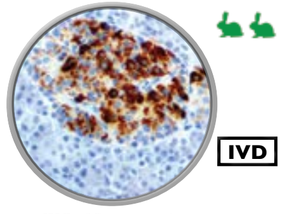
Smoothelin is a constituent of the smooth muscle cell cytoskeleton protein exclusively found in differentiated smooth muscle cells (SMC). Cells with SMC-like characteristics, such as myofibroblasts and myoepithelial cells, as well as skeletal and cardiac muscle do not contain smoothelin. To distinguish bladder muscularis mucosae (MM) from muscularis propria (MP) muscle bundles is crucial for accurate staging of bladder carcinoma.

Strong smoothelin expression is nearly exclusively observed in muscularis propria. Therefore, the staining pattern of MP (strongly positive) and MM (negative or weakly positive) makes this technique an attractive diagnostic tool for the sometimes difficult task of staging bladder urothelial carcinoma such as in transurethral resection specimens of urinary bladder tumrors. Anti-Smoothelin can also be useful in differentiationg between benign (+) and malignant smooth muscle tumors (-).

ANTIBODY TYPE *Mouse Monoclonal*
CLONE *R4A*
ISOTYPE *IgG1*
CONTROL *Leiomyoma, Bladder*
LOCALIZATION *Cytoplasmic*

CAT. #	PRESENTATION	VOL/QTY
BSB 2189	Tinto Prediluted	3.0 ml
BSB 2190	Tinto Prediluted	7.0 ml
BSB 2191	Tinto Prediluted	15.0 ml
BSB 2192	Concentrated	0.1 ml
BSB 2193	Concentrated	0.5 ml
BSB 2194	Concentrated	1.0 ml
BSB 2195	control slides	5

Somatostatin



IHC of Somatostatin on an FFPE Pancreas Tissue

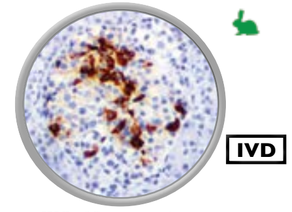
Somatostatin is a peptide hormone that regulates the endocrine system and affects neurotransmission and cell proliferation via interaction with G-protein-coupled somatostatin receptors and by inhibition of the release of numerous secondary hormones. Somatostatin has two active forms produced by alternative cleavage of a single preproprotein: one of 14 amino acids; the other of 28 amino acids. Somatostatin is secreted not only by cells of the hypothalamus but also by the stomach, intestine, and delta cells of the pancreas. It binds to somatostatin receptors.

Somatostatin is a useful marker of D-cells of pancreatic islet cells. D-cells are used to identify hyperplasia of the pancreatic islets. Most of these tumors are malignant, giving rise to Somatostatinomas. Somatostatin suppresses gastric acid secretion, gallbladder contractions and pancreatic enzyme secretion.

ANTIBODY TYPE *Rabbit Polyclonal*
CLONE *N/A*
ISOTYPE *IgG*
CONTROL *Pancreas*
LOCALIZATION *Cytoplasmic*

CAT. #	PRESENTATION	VOL/QTY
BSB 5931	Tinto Prediluted	3.0 ml
BSB 5932	Tinto Prediluted	7.0 ml
BSB 5933	Tinto Prediluted	15.0 ml
BSB 5934	Concentrated	0.1 ml
BSB 5935	Concentrated	0.5 ml
BSB 5936	Concentrated	1.0 ml
BSB 5937	control slides	5

Somatostatin, RMab



IHC of Somatostatin on an FFPE Pancreas Tissue

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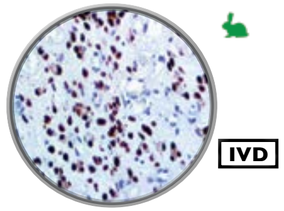
Somatostatin is a useful marker of D-cells of pancreatic islet cells. D-cells are used to identify hyperplasia of the pancreatic islets. Most of these tumors are malignant, giving rise to Somatostatinomas. Somatostatin suppresses gastric acid secretion, gallbladder contractions and pancreatic enzyme secretion.

ANTIBODY TYPE *Rabbit Monoclonal*
CLONE *EP130**
ISOTYPE *IgG*
CONTROL *Pancreas*
LOCALIZATION *Cytoplasmic*

CAT. #	PRESENTATION	VOL/QTY
BSB 2196	Tinto Prediluted	3.0 ml
BSB 2197	Tinto Prediluted	7.0 ml
BSB 2198	Tinto Prediluted	15.0 ml
BSB 2199	Concentrated	0.1 ml
BSB 2200	Concentrated	0.5 ml
BSB 2201	Concentrated	1.0 ml
BSB 5937	control slides	5

SOX-2, RMab



IHC of SOX-2 on an FFPE Brain Tissue

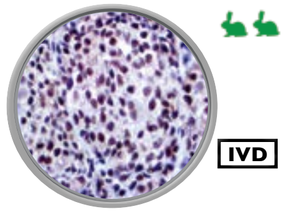
SRY (sex determining region Y)-box 2, also known as SOX2, is a transcription factor that is essential for maintaining self-renewal, or pluripotency, of undifferentiated embryonic stem cells. It is required for stem cell maintenance in the central nervous system, and it also regulates gene expression in the stomach.

SOX2 is expressed in fetal brain and is used as a marker for multipotential neural stem cells. In tumors, SOX2 expression is observed in teratoma of the central nervous system, melanoma, testicular germ cell tumor, cervical carcinoma, lung cancer, breast cancer with basal cell phenotype, and squamous cell carcinoma of the gastrointestinal tract. SOX2 may be useful in the identification of embryonal carcinoma. In stage I lung adenocarcinomas, SOX2 seems to be an independent predictor of poor outcome and may help stratify patients at increased risk for recurrence.

ANTIBODY TYPE *Rabbit Monoclonal*
CLONE *EP103**
ISOTYPE *IgG*
CONTROL *Squamous Cell Carcinoma, Brain, Oligodendroglioma*
LOCALIZATION *Nuclear*

CAT. #	PRESENTATION	VOL/QTY
BSB 2202	Tinto Prediluted	3.0 ml
BSB 2203	Tinto Prediluted	7.0 ml
BSB 2204	Tinto Prediluted	15.0 ml
BSB 2205	Concentrated	0.1 ml
BSB 2206	Concentrated	0.5 ml
BSB 2207	Concentrated	1.0 ml
BSB 2208	control slides	5

SOX-10



IHC of Cytokeratin SOX-10 on an FFPE Melanoma Tissue

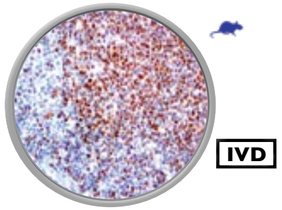
Transcription factor SOX-10 is a member of the SOX (SRY-related HMG-box) family of transcription factors involved in the regulation of embryonic development and in the determination of the cell fate. The encoded protein may act as a transcriptional activator after forming a protein complex with other proteins. This protein acts as a nucleocytoplasmic shuttle protein and is important for neural crest and peripheral nervous system development. Mutations in this gene are associated with Waardenburg-Shah and Waardenburg-Hirschsprung disease. Anti-SOX-10 has been recently shown to be a sensitive marker of melanoma, including conventional, spindled, and desmoplastic subtypes.

SOX-10 is expressed by metastatic melanomas and nodal capsular nevus in sentinel lymph nodes, but not by other lymph node components such as dendritic cells which usually express S100 protein. In scar specimens, immature fibroblasts, epithelioid granulomas, and histiocytic proliferations can histopathologically mimic residual melanoma and even be positive for MiTF and S100. However, SOX-10 is less likely to be expressed by fibroblasts or histiocytes, especially compared to MiTF and S100. Anti-SOX-10 produces a nuclear stain that provides a clean signal that is much sharper and darker in staining quality when compared to the use of antibodies against MiTF and S100.

ANTIBODY TYPE *Rabbit Polyclonal*
CLONE *N/A*
ISOTYPE *IgG*
CONTROL *Melanoma, Schwannoma*
LOCALIZATION *Nuclear*

CAT. #	PRESENTATION	VOL/QTY
BSB 2209	Tinto Prediluted	3.0 ml
BSB 2210	Tinto Prediluted	7.0 ml
BSB 2211	Tinto Prediluted	15.0 ml
BSB 2212	Concentrated	0.1 ml
BSB 2213	Concentrated	0.5 ml
BSB 2214	Concentrated	1.0 ml
BSB 2215	control slides	5

SOX-11



IHC of SOX-11 on an FFPE Mantle Cell Lymphoma Tissue

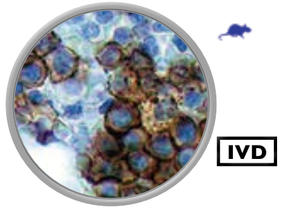
Transcription factor SOX-11 is a member of the group C SOX (SRY-related HMG-box) transcription factor family involved in the regulation of embryonic development and in the determination of the cell fate. The encoded protein may act as a transcriptional regulator after forming a protein complex with other proteins. The protein may function in the developing nervous system and play a role in tumorigenesis and adult neurogenesis. SOX-11 is normally expressed in the developing human central nervous system, Medulloblastoma, and Glioma.

Anti-SOX-11 nuclear protein expression is highly associated with both Cyclin D1-positive and negative Mantle Cell Lymphomas, with a stronger and more homogeneous Immunohistochemistry staining than Cyclin D1.

ANTIBODY TYPE *Mouse Monoclonal*
CLONE *CL0142*
ISOTYPE *IgG2a*
CONTROL *Mantle Cell Lymphoma*
LOCALIZATION *Nuclear*

CAT. #	PRESENTATION	VOL/QTY
BSB 2216	Tinto Prediluted	3.0 ml
BSB 2217	Tinto Prediluted	7.0 ml
BSB 2218	Tinto Prediluted	15.0 ml
BSB 2219	Concentrated	0.1 ml
BSB 2220	Concentrated	0.5 ml
BSB 2221	Concentrated	1.0 ml
BSB 2222	control slides	5

Spectrin



IHC of Spectrin on an FFPE Bone Marrow Tissue

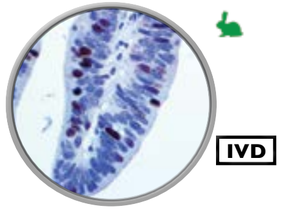
Spectrin is a cytoskeletal protein that lines the intracellular side of the plasma membrane of many cell types in pentagonal or hexagonal arrangements, forming scaffolds and playing an important role in maintenance of plasma-membrane integrity and cytoskeletal structure. The hexagonal arrangements are formed by tetramers of spectrin associating with short actin filaments at either end of the tetramer. These short actin filaments act as junctional complexes, allowing the formation of the hexagonal mesh.

Spectrin is found in the intracellular side of the plasma membrane of many cell types found in muscles, red blood cells and red cell precursors. Anti-Spectrin antibody is useful in the diagnosis of Erythroid Leukemias.

ANTIBODY TYPE *Mouse Monoclonal*
CLONE *RBC2/3D5*
ISOTYPE *IgG2b/K*
CONTROL *Bone Marrow*
LOCALIZATION *Membranous*

CAT. #	PRESENTATION	VOL/QTY
BSB 5938	Tinto Prediluted	3.0 ml
BSB 5939	Tinto Prediluted	7.0 ml
BSB 5940	Tinto Prediluted	15.0 ml
BSB 5941	Concentrated	0.1 ml
BSB 5942	Concentrated	0.5 ml
BSB 5943	Concentrated	1.0 ml
BSB 5944	control slides	5

Survivin, RMab



IHC of Survivin on an FFPE Colon Tissue

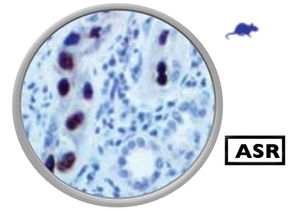
Survivin, also called baculoviral inhibitor of apoptosis repeat-containing 5 or BIRC5, is a member of the inhibitor of apoptosis (IAP) family. The survivin protein functions to inhibit caspase activation, thereby leading to negative regulation of apoptosis or programmed cell death. The survivin protein is expressed highly in most human tumors and fetal tissue, but is completely absent in terminally differentiated cells. Survivin expression is also highly regulated by the cell cycle and is only expressed in the G2-M phase. It is known that survivin localizes to the mitotic spindle by interaction with tubulin during mitosis and may play a contributing role in regulating mitosis.

The association of survivin expression with tumor progression, but not overall patient survival, has been observed in a variety of malignancies including renal cell carcinoma, ovary carcinoma, hepatocellular carcinoma, prostate carcinoma and breast carcinoma.

ANTIBODY TYPE *Rabbit Monoclonal*
CLONE *EP119**
ISOTYPE *IgG*
CONTROL *Colon Carcinoma*
LOCALIZATION *Nuclear*

CAT. #	PRESENTATION	VOL/QTY
BSB 2223	Tinto Prediluted	3.0 ml
BSB 2224	Tinto Prediluted	7.0 ml
BSB 2225	Tinto Prediluted	15.0 ml
BSB 2226	Concentrated	0.1 ml
BSB 2227	Concentrated	0.5 ml
BSB 2228	Concentrated	1.0 ml
BSB 2229	control slides	5

SV40



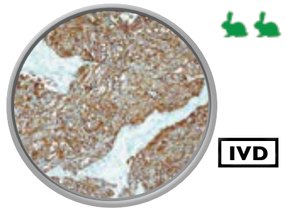
IHC of SV40 on an FFPE Infected Kidney Tissue

SV40 is an abbreviation for Simian vacuolating virus 40 or Simian virus 40, a polyomavirus that is found in both monkeys and humans. Like other polyomaviruses, SV40 is a DNA virus that has the potential to cause tumors, but most often persists as a latent infection.

ANTIBODY TYPE *Mouse Monoclonal*
CLONE *Pab101*
ISOTYPE *IgG2a*
CONTROL *Infected Tissue*
LOCALIZATION *Nuclear*

CAT. #	PRESENTATION	VOL/QTY
BSB 2230	Tinto Prediluted	3.0 ml
BSB 2231	Tinto Prediluted	7.0 ml
BSB 2232	Tinto Prediluted	15.0 ml
BSB 2233	Concentrated	0.1 ml
BSB 2234	Concentrated	0.5 ml
BSB 2235	Concentrated	1.0 ml
BSB 2236	control slides	5

Synaptophysin



IHC of Synaptophysin on an FFPE Neuroendocrine Tumor

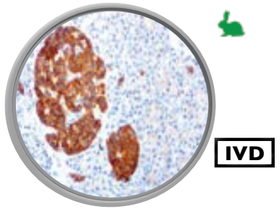
Synaptophysin is a synaptic vesicle glycoprotein weighing 38 kDa. It is present in endocrine cells, the brain, spinal cord, and adrenal glands. It acts as a marker for neuroendocrine cells.

Synaptophysin reacts with neuroendocrine cells of human adrenal medulla, carotid body, skin, pituitary, thyroid, lung, pancreas and gastrointestinal mucosa. Positive staining is seen in neurons of the brain, spinal cord, retina, and Paneth's cells in the gastrointestinal tract and gastric parietal cells. This antibody identifies normal neuroendocrine cells and neuroendocrine neoplasms. Diffuse, finely-granular cytoplasmic staining is observed and probably correlates with the distribution of the antigen within neurosecretory vesicles. The expression of Synaptophysin is independent of the presence of NSE or other neuroendocrine markers. Synaptophysin is an independent broad-range marker of neural and neuroendocrine differentiation.

ANTIBODY TYPE *Rabbit Polyclonal*
CLONE *N/A*
ISOTYPE *IgG*
CONTROL *Pancreas*
LOCALIZATION *Cytoplasmic*

CAT. #	PRESENTATION	VOL/QTY
BSB 5945	Tinto Prediluted	3.0 ml
BSB 5946	Tinto Prediluted	7.0 ml
BSB 5947	Tinto Prediluted	15.0 ml
BSB 5948	Concentrated	0.1 ml
BSB 5949	Concentrated	0.5 ml
BSB 5950	Concentrated	1.0 ml
BSB 5951	control slides	5

Synaptophysin, RMab



IHC of Synaptophysin on an FFPE Pancreas Tissue

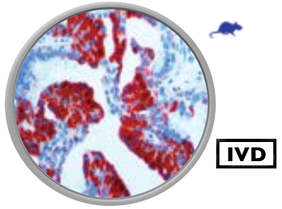
Synaptophysin is a synaptic vesicle glycoprotein weighing 38 kDa. It is present in endocrine cells, the brain, spinal cord, and adrenal glands. It acts as a marker for neuroendocrine cells.

Synaptophysin reacts with neuroendocrine cells of human adrenal medulla, carotid body, skin, pituitary, thyroid, lung, pancreas and gastrointestinal mucosa. Positive staining is seen in neurons of the brain, spinal cord, retina, and Paneth's cells in the gastrointestinal tract and gastric parietal cells. This antibody identifies normal neuroendocrine cells and neuroendocrine neoplasms. Diffuse, finely-granular cytoplasmic staining is observed and probably correlates with the distribution of the antigen within neurosecretory vesicles. The expression of Synaptophysin is independent of the presence of NSE or other neuroendocrine markers. Synaptophysin is an independent broad-range marker of neural and neuroendocrine differentiation.

ANTIBODY TYPE *Rabbit Monoclonal*
CLONE *EP158**
ISOTYPE *IgG*
CONTROL *Pancreas, Brain*
LOCALIZATION *Cytoplasmic*

CAT. #	PRESENTATION	VOL/QTY
BSB 2237	Tinto Prediluted	3.0 ml
BSB 2238	Tinto Prediluted	7.0 ml
BSB 2239	Tinto Prediluted	15.0 ml
BSB 2240	Concentrated	0.1 ml
BSB 2241	Concentrated	0.5 ml
BSB 2242	Concentrated	1.0 ml
BSB 2243	control slides	5

TAG-72



IHC of TAG-72 on an FFPE Breast Carcinoma Tissue

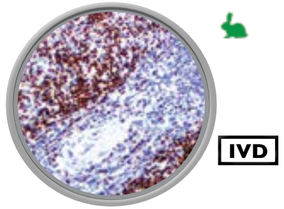
Tumor-associated glycoprotein (TAG-72) has been shown to be expressed in a wide variety of epithelial malignant tissues. TAG-72 antigen is a high molecular glycoprotein found on the surface of many cancer cells, including breast, colon and pancreatic cells. It is present in human Adenocarcinomas and in lesser amounts, non-neoplastic tissues. The majority of human Adenocarcinomas including Colorectal, Pancreatic, Gastric, Ovarian, Endometrial, Mammary, and Non-Small Cell Lung Cancer display some cell populations that are positive for TAG-72.

TAG-72 has also been found to be useful for the distinction between Mesothelioma and Adenocarcinoma; however, false positive reactions can occur so results must be interpreted with the utmost caution.

ANTIBODY TYPE *Mouse Monoclonal*
CLONE *Tag72-22*
ISOTYPE *IgG1/K*
CONTROL *Breast Carcinoma*
LOCALIZATION *Cytoplasmic*

CAT. #	PRESENTATION	VOL/QTY
BSB 5952	Tinto Prediluted	3.0 ml
BSB 5953	Tinto Prediluted	7.0 ml
BSB 5954	Tinto Prediluted	15.0 ml
BSB 5955	Concentrated	0.1 ml
BSB 5956	Concentrated	0.5 ml
BSB 5957	Concentrated	1.0 ml
BSB 5958	control slides	5

T-bet, RMab



IHC of T-bet on an FFPE Lymphoma Tissue

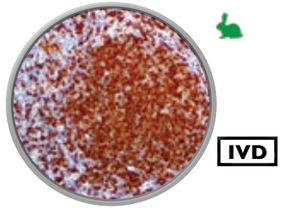
T-bet, a T-box transcription factor, is expressed in CD4+ T-lymphocytes committed to T-helper (Th)1 T-cell development from naïve T-helper precursor cells (Thp) and redirects Th2 T cells to Th1 development.

T-bet is expressed in a significant subset of B-cell lymphoproliferative disorders, particularly at an early stage of B-cell development (precursor B-cell lymphoblastic leukemia/lymphoblastic lymphoma), and B-cell neoplasms derived from mature B cells, including CLL/SLL, marginal zone lymphoma, and hairy cell leukemia. In contrast, B-cell neoplasms derived from pregerminal center or germinal center B-cells, including mantle cell lymphoma, follicular lymphoma, diffuse large B-cell lymphoma, and Burkitt lymphoma are negative for T-bet. Therefore, anti-T-bet should serve as a useful marker for the diagnosis and subtyping of B-cell and T-cell lymphoproliferative disorders.

ANTIBODY TYPE *Rabbit Monoclonal*
CLONE *MRQ-46*
ISOTYPE *IgG*
CONTROL *Tonsil, Hairy Cell Leukemia*
LOCALIZATION *Nuclear*

CAT. #	PRESENTATION	VOL/QTY
BSB 2244	Tinto Prediluted	3.0 ml
BSB 2245	Tinto Prediluted	7.0 ml
BSB 2246	Tinto Prediluted	15.0 ml
BSB 2247	Concentrated	0.1 ml
BSB 2248	Concentrated	0.5 ml
BSB 2249	Concentrated	1.0 ml
BSB 2250	control slides	5

TCL1, RMab



IHC of TCL1 on an FFPE Lymphoma Tissue

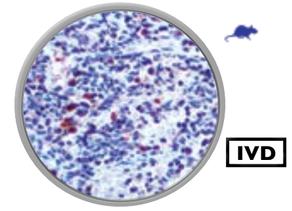
T-cell leukemia/lymphoma protein 1 (TCL1, TCL1A, p14TCL1) is involved in T-cell prolymphocytic leukemia (T-PLL) and is normally found in the nucleus and cytoplasm of lymphoid lineage cells during early embryogenesis. Chromosomal translocations may lead to overexpression of TCL1, resulting in T-cell leukemia and B-cell lymphoma. TCL1 is expressed in more differentiated B-cells, under both reactive and neoplastic conditions, from antigen committed B-cells and in germinal center B-cells. TCL1 is down-regulated in the latest stage of B-cell differentiation.

TCL1 is overexpressed in Burkitt Lymphoma, the majority of AIDS-related non-Hodgkin's Lymphoma-designated Immunoblastic Plasmacytoid Lymphoma, Lymphoblastic Lymphoma, Chronic Lymphocytic Leukemia, Mantle Cell Lymphoma, Follicular Lymphoma, Diffuse Large B-cell Lymphoma, and Primary Cutaneous B-cell Lymphoma. Therefore, the most useful application of anti-TCL1 is the discrimination of B-cell lymphomas from T-cell lymphomas, CD30+ Anaplastic Large Cell Lymphomas, Multiple Myeloma, and Marginal Zone B-cell Lymphoma.

ANTIBODY TYPE *Rabbit Monoclonal*
CLONE *EP105**
ISOTYPE *IgG*
CONTROL *Tonsil, Lymph Node*
LOCALIZATION *Nuclear, Cytoplasmic*

CAT. #	PRESENTATION	VOL/QTY
BSB 2251	Tinto Prediluted	3.0 ml
BSB 2252	Tinto Prediluted	7.0 ml
BSB 2253	Tinto Prediluted	15.0 ml
BSB 2254	Concentrated	0.1 ml
BSB 2255	Concentrated	0.5 ml
BSB 2256	Concentrated	1.0 ml
BSB 2257	control slides	5

TCR Beta F1



IHC of TCR Beta F1 on an FFPE Tonsil Tissue

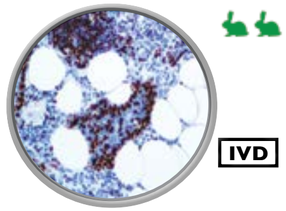
The T cell receptor or TCR is a molecule found on the surface of T lymphocytes (or T cells) that is responsible for recognizing antigens bound to major histocompatibility complex (MHC) molecules. The TCR is composed of two different protein chains (that is, it is a heterodimer). In 95% of T cells, this consists of an alpha (α) and beta (β) chain, whereas in 5% of T cells this consists of gamma and delta (γ/δ) chains. TCR Beta is a member of the immunoglobin super family and a component of the CD3/TCR complex (along with TCR Alpha).

TCR Beta is expressed by thymocytes and a majority of peripheral (α-β TCR-bearing) T-cells. TCR recognition of self-peptides has been linked to autoimmune disease. Mutant self-peptides have been associated with tumors.

ANTIBODY TYPE *Mouse Monoclonal*
CLONE *8A3*
ISOTYPE *IgG1*
CONTROL *Tonsil, Lymph Node*
LOCALIZATION *Cytoplasmic*

CAT. #	PRESENTATION	VOL/QTY
BSB 2258	Tinto Prediluted	3.0 ml
BSB 2259	Tinto Prediluted	7.0 ml
BSB 2260	Tinto Prediluted	15.0 ml
BSB 2261	Concentrated	0.1 ml
BSB 2262	Concentrated	0.5 ml
BSB 2263	Concentrated	1.0 ml
BSB 2264	control slides	5

TdT



IHC of TdT on an FFPE Thymus Tissue

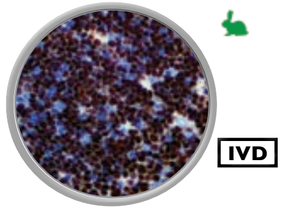
Terminal Deoxynucleotidyl Transferase (also known as TdT and terminal transferase) is a specialized DNA polymerase expressed in immature, pre-B, pre-T lymphoid cells and acute Lymphoblastic Leukemia/Lymphoma cells. TdT catalyzes the addition of nucleotides to the 3′ terminus of a DNA molecule. Unlike most DNA polymerases, it does not require a template. The preferred substrate of this enzyme is a protruding 3′ overhang, but it can also add nucleotides to blunt or recessed 3′ ends.

TdT is normally found in cortical thymocytes and primitive lymphocytes. TdT antibody detects its antigen found in the nucleus of normal hematopoietic cells, normal cortical thymocytes and in the cytoplasm of megakaryocytes of the bone marrow. TdT expression is seen in over 90% of Acute Lymphocytic Leukemia cases with the exception of pre-B-Cell ALL, and normal mature T- or B-lymphocytes. TdT is positive for approximately one third of all cases of Chronic Myeloid Leukemia, making it a good indicator of better response to chemotherapy.

ANTIBODY TYPE *Rabbit Polyclonal*
CLONE *N/A*
ISOTYPE *IgG*
CONTROL *TdT Positive Lymphoma, Thymus*
LOCALIZATION *Nuclear*

CAT. #	PRESENTATION	VOL/QTY
BSB 5966	Tinto Prediluted	3.0 ml
BSB 5967	Tinto Prediluted	7.0 ml
BSB 5968	Tinto Prediluted	15.0 ml
BSB 5969	Concentrated	0.1 ml
BSB 5970	Concentrated	0.5 ml
BSB 5971	Concentrated	1.0 ml
BSB 5972	control slides	5

TdT, RMab



IHC of TdT on anFFPE Thymus Tissue

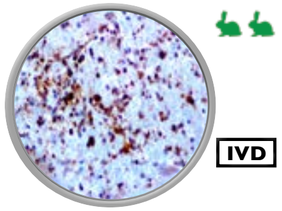
Terminal Deoxynucleotidyl Transferase (also known as TdT and terminal transferase) is a specialized DNA polymerase expressed in immature, pre-B, pre-T lymphoid cells and acute Lymphoblastic Leukemia/Lymphoma cells. TdT catalyzes the addition of nucleotides to the 3′ terminus of a DNA molecule. Unlike most DNA polymerases, it does not require a template. The preferred substrate of this enzyme is a protruding 3′ overhang, but it can also add nucleotides to blunt or recessed 3′ ends.

TdT is normally found in cortical thymocytes and primitive lymphocytes. TdT antibody detects its antigen found in the nucleus of normal hematopoietic cells, normal cortical thymocytes and in the cytoplasm of megakaryocytes of the bone marrow. TdT expression is seen in over 90% of Acute Lymphocytic Leukemia cases with the exception of pre-B-Cell ALL, and normal mature T- or B-lymphocytes. TdT is positive for approximately one third of all cases of Chronic Myeloid Leukemia, making it a good indicator of better response to chemotherapy.

ANTIBODY TYPE *Rabbit Monoclonal*
CLONE *RBT-TdT*
ISOTYPE *IgG*
CONTROL *TdT Positive Lymphoma, Thymus*
LOCALIZATION *Nuclear*

CAT. #	PRESENTATION	VOL/QTY
BSB 2265	Tinto Prediluted	3.0 ml
BSB 2266	Tinto Prediluted	7.0 ml
BSB 2267	Tinto Prediluted	15.0 ml
BSB 2268	Concentrated	0.1 ml
BSB 2269	Concentrated	0.5 ml
BSB 2270	Concentrated	1.0 ml
BSB 2271	control slides	5

TFE3



IHC of TFE3 on an FFPE Brain Tissue

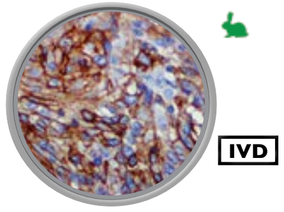
Xp11 translocation renal cell carcinomas (RCC) are a recently recognized subset of RCC, characterized by chromosome translocations involving the Xp11.2 break point and resulting in gene fusions involving the TFE3 transcription factor gene that maps to this locus. Xp11 translocation RCC represents the most common type of RCC in children, but is less frequent on a percentage basis in adults. Morphologically, these neoplasms frequently show papillary architecture and clear cytoplasm, and frequently have associated psammoma bodies.

Immunohistochemically, these neoplasms under-express epithelial markers such anti-cytokeratin and anti-epithelial membrane antigen (anti-EMA) compared with typical adult type RCC. The most sensitive and specific immunohistochemical marker for the Xp11 translocation RCC is nuclear labeling of TFE3 protein, which reflects over-expression of the resulting fusion proteins relative to native TFE3. Alveolar soft part sarcoma (ASPS) is an uncommon soft tissue sarcoma of uncertain differentiation. It is often present in the extremities of younger presents.

ANTIBODY TYPE *Rabbit Polyclonal*
CLONE *N/A*
ISOTYPE *IgG*
CONTROL *Melanoma, Testis, RCC with Xp11.2 translocation*
LOCALIZATION *Nuclear*

CAT. #	PRESENTATION	VOL/QTY
BSB 2272	Tinto Prediluted	3.0 ml
BSB 2273	Tinto Prediluted	7.0 ml
BSB 2274	Tinto Prediluted	15.0 ml
BSB 2275	Concentrated	0.1 ml
BSB 2276	Concentrated	0.5 ml
BSB 2277	Concentrated	1.0 ml
BSB 2278	control slides	5

Thrombomodulin, RMab



IHC of Thrombomodulin on an FFPE Mesothelioma Tissue

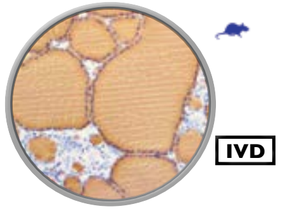
Thrombomodulin, also known as CD141, is an endothelial-specific type 1 membrane receptor that binds thrombin, resulting in the activation of protein C. This causes the degradation of clotting factors Va and VIIIa and reduces the amount of thrombin generated. Defect in Thrombomodulin is a cause of thromboembolic disease, also known as inherited thrombophilia.

Thrombomodulin was initially identified in endothelial cells, but is also found in extra-vascular sites, such as synctiotrophoblasts in the placenta, epithelial tissues in the gingiva, in skin and in the synovial lining cells. In tumors, Thrombomodulin is expressed in vascular tumors and squamous cell carcinoma in a variety of tissues, including oral mucosa, esophagus, and skin. Thrombodulin is a useful marker for detecting angiosarcoma, and can also be used to distinguish between mesothelioma (positive) from lung adenocarcinoma (negative).

ANTIBODY TYPE *Rabbit Monoclonal*
CLONE *EP175**
ISOTYPE *IgG*
CONTROL *Mesothelioma, Bladder, Transitional Cell Carcinoma*
LOCALIZATION *Membranous, Cytoplasmic*

CAT. #	PRESENTATION	VOL/QTY
BSB 2279	Tinto Prediluted	3.0 ml
BSB 2280	Tinto Prediluted	7.0 ml
BSB 2281	Tinto Prediluted	15.0 ml
BSB 2282	Concentrated	0.1 ml
BSB 2283	Concentrated	0.5 ml
BSB 2284	Concentrated	1.0 ml
BSB 2285	control slides	5

Thyroglobulin



IHC of Thyroglobulin on an FFPE Thyroid Tissue

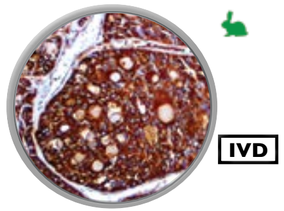
Thyroglobulin (Tg) is a 660 kDa, dimeric protein produced by and used entirely within the thyroid gland. Tg is used by the thyroid gland to produce the thyroid hormones thyroxine (T4) and triiodothyronine (T3). The active form of thyroxine, triiodothyronine, is produced both within the thyroid gland and on the periphery by 5′-deiodinase, which has been referred to as Tetraiodothyronine-5-deiodinase.

This antibody reacts with human thyroglobulin as demonstrated by a single band of immunoblotting in a lysate of human thyroid tissue. The vast majority of follicular carcinomas of the thyroid will give positive immunoreactivity for thyroglobulin, sometimes only focally. Poorly-differentiated Carcinomas of the Thyroid are frequently thyroglobulin negative. Adenocarcinomas of non-thyroid origin do not react with this antibody.

ANTIBODY TYPE *Mouse Monoclonal*
CLONE *BSB23*
ISOTYPE *IgG1*
CONTROL *Thyroid*
LOCALIZATION *Cytoplasmic*

CAT. #	PRESENTATION	VOL/QTY
BSB 5973	Tinto Prediluted	3.0 ml
BSB 5974	Tinto Prediluted	7.0 ml
BSB 5975	Tinto Prediluted	15.0 ml
BSB 5976	Concentrated	0.1 ml
BSB 5977	Concentrated	0.5 ml
BSB 5978	Concentrated	1.0 ml
BSB 5979	control slides	5

Thyroglobulin, RMab



IHC of Thyroglobulin on an FFPE Papillary Thyroid Carcinoma Tissue

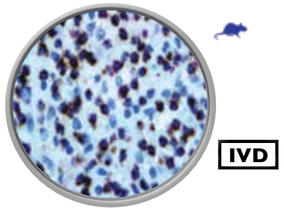
Thyroglobulin (Tg) is a 660 kDa, dimeric protein produced by and used entirely within the thyroid gland. Tg is used by the thyroid gland to produce the thyroid hormones thyroxine (T4) and triiodothyronine (T3). The active form of thyroxine, triiodothyronine, is produced both within the thyroid gland and on the periphery by 5′-deiodinase, which has been referred to as Tetraiodothyronine-5-deiodinase.

This antibody reacts with human thyroglobulin as demonstrated by a single band of immunoblotting in a lysate of human thyroid tissue. The vast majority of follicular carcinomas of the thyroid will give positive immunoreactivity for thyroglobulin, sometimes only focally. Poorly-differentiated Carcinomas of the Thyroid are frequently thyroglobulin negative. Adenocarcinomas of non-thyroid origin do not react with this antibody.

ANTIBODY TYPE *Rabbit Monoclonal*
CLONE *EP250**
ISOTYPE *IgG*
CONTROL *Thyroid*
LOCALIZATION *Cytoplasmic*

CAT. #	PRESENTATION	VOL/QTY
BSB 2363	Tinto Prediluted	3.0 ml
BSB 2364	Tinto Prediluted	7.0 ml
BSB 2365	Tinto Prediluted	15.0 ml
BSB 2366	Concentrated	0.1 ml
BSB 2367	Concentrated	0.5 ml
BSB 2368	Concentrated	1.0 ml
BSB 2369	control slides	5

TIA-1



IHC of TIA-1 on an FFPE Spleen Tissue

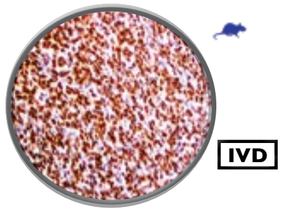
TIA-1 (T-cell intracytoplasmic antigen) is a 15 kDa cytoplasmic granule-associated protein, expressed in lymphocytes processing cytolytic potential. TIA-1 is a member of an RNA-binding protein family and possesses nucleolytic activity against cytotoxic lymphocyte (CTL) target cells. It has been suggested that this protein may be involved in the induction of apoptosis as it preferentially recognizes poly(A) homopolymers and induces DNA fragmentation in CTL targets. The major granule-associated species is a 15 kDa protein thought to be derived from the carboxyl terminus of the 40 kDa product by proteolytic processing.

The expression of TIA-1 has been studied in Anaplastic Large Cell Lymphomas (ALCL), NK-cell Lymphomas, Peripheral T-cell Lymphomas, T-cell Lymphocytosis, B-cell Lymphomas and Lymphoblastic Leukemia, Hodgkin's, etc. Studies show that 60 to 70% of Anaplastic Large Cell Lymphomas react with TIA-1. TIA-1 reacts with most Large Granular Lymphocytic Leukemias, Hepatosplenic T-cell Lymphomas, intestinal T-cell Lymphomas, NK-like T-cell Lymphomas, NK-cell Lymphomas, nasal T/NK-cell Lymphomas, subcutaneous T-cell Lymphomas and Pulmonary Angiocentric Lymphomas of T- or NK-phenotype. All B-cell Lymphomas, Hodgkin's and Lymphoblastic Leukemias are negative for TIA-1.

ANTIBODY TYPE *Mouse Monoclonal*
CLONE *TIA-1*
ISOTYPE *IgG1*
CONTROL *Tonsil, Spleen, Anaplastic Large Cell Lymphoma*
LOCALIZATION *Cytoplasmic (Granular)*

CAT. #	PRESENTATION	VOL/QTY
BSB 6352	Tinto Prediluted	3.0 ml
BSB 6353	Tinto Prediluted	7.0 ml
BSB 6354	Tinto Prediluted	15.0 ml
BSB 6355	Concentrated	0.1 ml
BSB 6356	Concentrated	0.5 ml
BSB 6357	Concentrated	1.0 ml
BSB 6358	control slides	5

TLE1



IHC of TLE1 on an FFPE Synovial Sarcoma Tissue

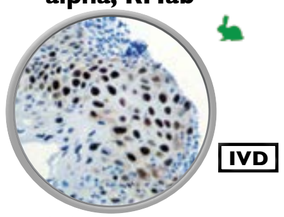
The Notch signaling pathway controls cellular interactions important for the specification of a variety of fates in both invertebrates and vertebrates. Key players in the Notch pathway are the TLE genes. TLEs associate with chromatin in live cells and specifically with Histone H3, but not with other core histones. Expression of the TLE genes, TLE1, TLE2, TLE3 and TLE4, correlate with immature epithelial cells that are progressing toward a terminally differentiated state, suggesting a role during epithelial differentation.

Anti-TLE1 can be used to differentiate synovial sarcoma from other sarcomas, including histologically similar tumors such as malignant peripheral nerve sheath tumor.

ANTIBODY TYPE *Mouse Monoclonal*
CLONE *1F5*
ISOTYPE *IgG1/K*
CONTROL *Synovial Sarcoma*
LOCALIZATION *Nuclear*

CAT. #	PRESENTATION	VOL/QTY
BSB 2314	Tinto Prediluted	3.0 ml
BSB 2315	Tinto Prediluted	7.0 ml
BSB 2316	Tinto Prediluted	15.0 ml
BSB 2317	Concentrated	0.1 ml
BSB 2318	Concentrated	0.5 ml
BSB 2319	Concentrated	1.0 ml
BSB 2320	control slides	5

Topoisomerase II alpha, RMab



IHC of Topo IIa on an FFPE HSIL of the Cervix

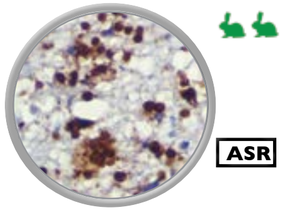
DNA Topoisomerase II alpha (Topo IIa) is a nucleic enzyme that affects the topological structure of DNA by interacting with the double-helix DNA, thus playing an important role in DNA replication, transcription, recombination, condensation, and segregation. Type II topoisomerases cut both strands of the DNA helix simultaneously in order to change the linking number of the molecule. Topo IIa is essential in the separation of daughter strands at the end of replication. Failure to separate these strands leads to cell death. In cancers, the Topo IIa is highly expressed in highly-proliferating cells.

Topo IIa has been identified by DNA microarray and transcriptional profiling as a gene that is overexpressed in Cervical Carcinomas. The TOP2A gene is approximately 30 kb in size and encodes a 170 kDa protein. Topo IIa protein is expressed in proliferating cells and in numerous human malignant tumors, including colon, gastric and breast cancers, Lymphomas and others. In certain cancers, such as Peripheral Nerve Sheath Tumors, high expression of this protein is also associated with poor patient survival.

ANTIBODY TYPE *Rabbit Monoclonal*
CLONE *RBT-Topo 2a*
ISOTYPE *IgG*
CONTROL *Cervical, Breast Cancer*
LOCALIZATION *Nuclear*

CAT. #	PRESENTATION	VOL/QTY
BSB 6338	Tinto Prediluted	3.0 ml
BSB 6339	Tinto Prediluted	7.0 ml
BSB 6340	Tinto Prediluted	15.0 ml
BSB 6341	Concentrated	0.1 ml
BSB 6342	Concentrated	0.5 ml
BSB 6343	Concentrated	1.0 ml
BSB 6344	control slides	5

Toxoplasma gondii



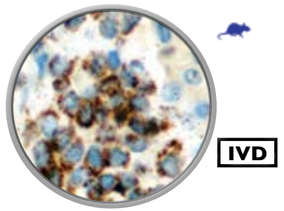
IHC of Toxoplasma gondii on an FFPE Brain Tissue

Toxoplasma gondii is a genus of parasitic protozoa (cats being the definitive host). It can also be carried by the vast majority of warm-blooded animals, including humans. Toxoplasma gondii belongs to the phylum Apicomplexa and is the only known member species of the genus Toxoplasma. The life cycle of T. gondii has two phases. The sexual part of the life cycle (coccidia-like) occurs only in members of the Felidae family (domestic and wild cats), which makes these animals the parasite's primary host. The asexual part of the life cycle can occur in any warm-blooded animal, such as other mammals (including felines) and birds.

ANTIBODY TYPE *Rabbit Polyclonal*
CLONE *N/A*
ISOTYPE *IgG*
CONTROL *Infected Tissue*
LOCALIZATION *Cell Wall*

CAT. #	PRESENTATION	VOL/QTY
BSB 6043	Tinto Prediluted	3.0 ml
BSB 6044	Tinto Prediluted	7.0 ml
BSB 6045	Tinto Prediluted	15.0 ml
BSB 6046	Concentrated	0.1 ml
BSB 6047	Concentrated	0.5 ml
BSB 6048	Concentrated	1.0 ml
BSB 6049	control slides	5

TRAcP



IHC of TRAcP on an FFPE Hairy Cell Leukemia Tissue

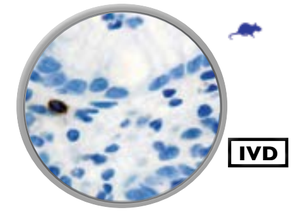
Tartrate-resistant acid phosphatase (TRAcP) is a glycosylated monomeric metallo-enzyme expressed in mammals. It has a molecular weight of approximately 35 kDa, a basic isoelectric point (7.6 - 9.5), and optimal activity in acidic conditions. TRAcP is synthesized as a latent proenzyme and is activated by proteolytic cleavage and reduction. Normally, TRAcP is highly expressed by osteoclasts, activated macrophages, neurons and endometrium during pregnancy. There are also certain pathological conditions whereby expression of TRAcP is increased. These include patients with Leukemic Reticuloendotheliosis (Hairy Cell Leukemia), Gaucher's Disease, HIV-induced Encephalopathy, Osteoclastoma and in osteoporosis and metabolic bone diseases.

Anti-TRAcP antibody labels the cells of Hairy Cell Leukemia (HCL) with a high degree of sensitivity and specificity. Other cells stained with this antibody are tissue macrophages and osteoclasts, which also express abundant TRAcP activity.

ANTIBODY TYPE *Mouse Monoclonal*
CLONE *9C5*
ISOTYPE *IgG2b*
CONTROL *Hairy Cell Leukemia*
LOCALIZATION *Cytoplasmic*

CAT. #	PRESENTATION	VOL/QTY
BSB 5980	Tinto Prediluted	3.0 ml
BSB 5981	Tinto Prediluted	7.0 ml
BSB 5982	Tinto Prediluted	15.0 ml
BSB 5983	Concentrated	0.1 ml
BSB 5984	Concentrated	0.5 ml
BSB 5985	Concentrated	1.0 ml
BSB 5986	control slides	5

Tryptase



IHC of Tryptase on an FFPE H. pylori Infected Stomach Tissue

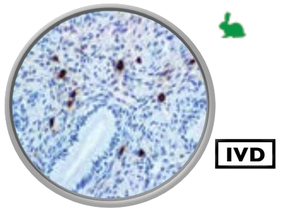
Tryptase is the most abundant secretory granule-derived serine proteinase contained in mast cells and has recently been used as a marker for mast cell activation. It is involved in allergenic response and is suspected to act as a mitogen for fibroblast lines. Elevated levels of serum tryptase occur in both anaphylactic and anaphylactoid reactions, but a negative test does not exclude anaphylaxis. Mast cells contain a number of preformed chemical mediators such as histamine, chymase, carboxypeptidase and proteolytic tryptase.

Human mast cell tryptase is considered to be an important marker of mast cell activation as well as an important mediator of inflammation. Anti-tryptase is a good marker for mast cells, basophils, and their derivatives.

ANTIBODY TYPE *Mouse Monoclonal*
CLONE *G3*
ISOTYPE *IgG1*
CONTROL *Mast Cell Containing Tissues, Uterus*
LOCALIZATION *Cytoplasmic*

CAT. #	PRESENTATION	VOL/QTY
BSB 5987	Tinto Prediluted	3.0 ml
BSB 5988	Tinto Prediluted	7.0 ml
BSB 5989	Tinto Prediluted	15.0 ml
BSB 5990	Concentrated	0.1 ml
BSB 5991	Concentrated	0.5 ml
BSB 5992	Concentrated	1.0 ml
BSB 5993	control slides	5

Tryptase, RMab



IHC of Tryptase on an FFPE Uterus Tissue

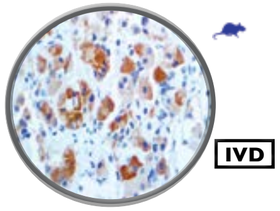
Tryptase is the most abundant secretory granule-derived serine proteinase contained in mast cells and has recently been used as a marker for mast cell activation. It is involved in allergenic response and is suspected to act as a mitogen for fibroblast lines. Elevated levels of serum tryptase occur in both anaphylactic and anaphylactoid reactions, but a negative test does not exclude anaphylaxis. Mast cells contain a number of preformed chemical mediators such as histamine, chymase, carboxypeptidase and proteolytic tryptase.

Human mast cell tryptase is considered to be an important marker of mast cell activation as well as an important mediator of inflammation. Anti-tryptase is a good marker for mast cells, basophils, and their derivatives.

ANTIBODY TYPE *Rabbit Monoclonal*
CLONE *EP259**
ISOTYPE *IgG*
CONTROL *Mast Cell Containing Tissues, Uterus*
LOCALIZATION *Cytoplasmic*

CAT. #	PRESENTATION	VOL/QTY
BSB 2377	Tinto Prediluted	3.0 ml
BSB 2378	Tinto Prediluted	7.0 ml
BSB 2379	Tinto Prediluted	15.0 ml
BSB 2380	Concentrated	0.1 ml
BSB 2381	Concentrated	0.5 ml
BSB 2382	Concentrated	1.0 ml
BSB 2383	control slides	5

TSH



IHC of TSH on an FFPE Pituitary Tissue

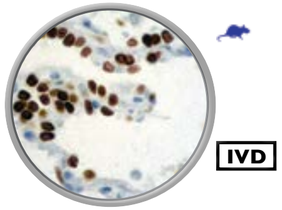
Thyroid-stimulating hormone (TSH or thyrotropin) is a hormone synthesized and secreted by thyrotrope cells in the anterior pituitary gland which regulates the endocrine function of the thyroid gland. TSH stimulates the thyroid gland to secrete the hormones thyroxine (T4) and triiodothyronine (T3). TSH production is controlled by a Thyrotropin-Releasing Hormone (TRH), which is manufactured in the hypothalamus and transported to the pituitary gland, where it increases TSH production and release. Somatostatin is also produced by the hypothalamus and has an opposite effect on the pituitary production of TSH, decreasing or inhibiting its release.

TSH is a useful marker in classification of pituitary tumors and the study of pituitary disease. TSH antibody primarily reacts with TSH-producing cells.

ANTIBODY TYPE *Mouse Monoclonal*
CLONE *TSH01 + TSH02*
ISOTYPE *IgG1/K & IgG1/K*
CONTROL *Normal Pituitary*
LOCALIZATION *Cytoplasmic*

CAT. #	PRESENTATION	VOL/QTY
BSB 5994	Tinto Prediluted	3.0 ml
BSB 5995	Tinto Prediluted	7.0 ml
BSB 5996	Tinto Prediluted	15.0 ml
BSB 5997	Concentrated	0.1 ml
BSB 5998	Concentrated	0.5 ml
BSB 5999	Concentrated	1.0 ml
BSB 6000	control slides	5

TTF-1



IHC of TTF-1 on an FFPE Lung Tissue

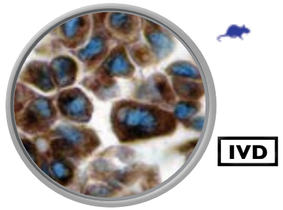
Thyroid transcription factor-1 (TTF-1) is a protein that regulates transcription of genes specific to the thyroid, lung and diencephalon. It is also known as thyroid-specific enhancer binding protein and NKX-2. It is used as a marker to determine if a tumor oringinates in the lung or thyroid. TTF-1 positive cells are found in Type II pneumocytes and Clara cells in the lung. In the thyroid, follicular and parafollicular cells are positive.

TTF-1 is useful in differentiating primary Adenocarcinoma of the Lung from Metastatic Carcinomas of the breast and Malignant Mesothelioma. It can also be used to differentiate Small-Cell Lung Carcinoma from lymphoid infiltrates. For lung cancers, Adenocarcinomas are usually positive, while Squamous Cell Carcinomas and Large Cell Carcinomas are rarely positive. Small-Cell Carcinomas (of any primary site) are usually positive.

ANTIBODY TYPE *Mouse Monoclonal*
CLONE *8G7G3/1*
ISOTYPE *IgG1*
CONTROL *Adenocarcinoma of Lung, Normal Lung, Thyroid*
LOCALIZATION *Nuclear*

CAT. #	PRESENTATION	VOL/QTY
BSB 6001	Tinto Prediluted	3.0 ml
BSB 6002	Tinto Prediluted	7.0 ml
BSB 6003	Tinto Prediluted	15.0 ml
BSB 6004	Concentrated	0.1 ml
BSB 6005	Concentrated	0.5 ml
BSB 6006	Concentrated	1.0 ml
BSB 6007	control slides	5

Tyrosinase



IHC of Tyrosinase on an FFPE Malignant Melanoma Tissue

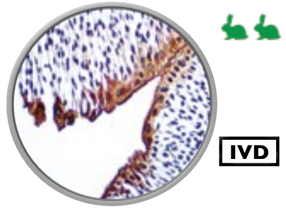
Tyrosinase is an enzyme that catalyzes the oxidation of phenols (such as tyrosine) and is widespread in plants and animals. Tyrosinase is a copper-containing enzyme present in plant and animal tissues that catalyzes the production of melanin and other pigments from tyrosine by oxidation. The gene for Tyrosinase is regulated by the Microphthalmia-associated transcription factor. A mutation in the tyrosinase gene leads to impaired tyrosinase production resulting in Type I Oculocutaneous Albinism, a hereditary disease that affects 1 in 17,000 people in the U.S.

Anti-Tyrosinase has been found to be quite specific for melanotic lesions such as Malignant Melanoma and Melanotic Neurofibroma. Essentially no carcinomas express this marker.

ANTIBODY TYPE *Mouse Monoclonal*
CLONE *Ty/G5*
ISOTYPE *IgG2a*
CONTROL *Malignant Melanoma, Skin*
LOCALIZATION *Cytoplasmic*

CAT. #	PRESENTATION	VOL/QTY
BSB 6008	Tinto Prediluted	3.0 ml
BSB 6009	Tinto Prediluted	7.0 ml
BSB 6010	Tinto Prediluted	15.0 ml
BSB 6011	Concentrated	0.1 ml
BSB 6012	Concentrated	0.5 ml
BSB 6013	Concentrated	1.0 ml
BSB 6014	control slides	5

Uroplakin III



IHC of Uroplakin III on an FFPE Transitional Cell Carcinoma Tissue

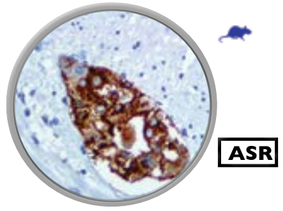
Uroplakins (UPs) are a family of transmembrane proteins (UPs Ia, Ib, II and III) that are specific differentation products of urothelial cells. In non-neoplastic mammalian urothelium, UPs are expressed in the luminal surface plasmalemma of superficial (umbrella) cells, forming complexes of 16-nm crystalline particles. Uroplakin III is expressed in urothelial carcinomas, whereas many non urothelial carcinomas were UPIII-negative. Recent studies have shown that UP expression might reflect the malignant potential of urothelial cancer cells as well as being cytodifferential markers of urothelial cells.

UPIII expression is strongly associated with lower tumor grades and lack of UPIII expression in urothelial tumors of the upper urinary tract is associated with much higher rates of metastases. Five-year specific survival is much worse for UPIII negative tumors (54%) than for UPIII positive tumors (100%). Apparently UPIII expression is a better indicator fo the malignant potential of the tumor than the grade of the tumor.

ANTIBODY TYPE *Rabbit Polyclonal*
CLONE *N/A*
ISOTYPE *IgG*
CONTROL *Bladder, Bladder Carcinoma*
LOCALIZATION *Cytoplasmic, Membranous*

CAT. #	PRESENTATION	VOL/QTY
BSB 2286	Tinto Prediluted	3.0 ml
BSB 2287	Tinto Prediluted	7.0 ml
BSB 2288	Tinto Prediluted	15.0 ml
BSB 2289	Concentrated	0.1 ml
BSB 2290	Concentrated	0.5 ml
BSB 2291	Concentrated	1.0 ml
BSB 2292	control slides	5

Varicella Zoster Virus



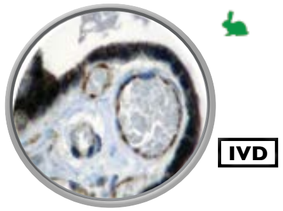
IHC of Varicella Zoster Virus on an FFPE Infected Tissue

Varicella Zoster Virus (VZV) is a member of the human herpes virus family and causes two distinct clinical manifestations: chickenpox and shingles.

ANTIBODY TYPE *Mouse Monoclonal*
CLONE *SG-1, SG1-SG4, NCP-1 & IE-62*
ISOTYPE *Mixed*
CONTROL *Infected Tissue*
LOCALIZATION *Membranous, Cytoplasmic*

CAT. #	PRESENTATION	VOL/QTY
BSB 2293	Tinto Prediluted	3.0 ml
BSB 2294	Tinto Prediluted	7.0 ml
BSB 2295	Tinto Prediluted	15.0 ml
BSB 2296	Concentrated	0.1 ml
BSB 2297	Concentrated	0.5 ml
BSB 2298	Concentrated	1.0 ml
BSB 2299	control slides	5

VEGF, RMab



IHC of VEGF on an FFPE Placenta Tissue

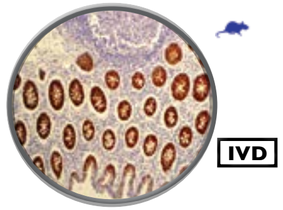
Vascular endothelial growth factor (VEGF) is an important signaling protein involved in both vasculogenesis (the de novo formation of the embryonic circulatory system) and angiogenesis (the growth of blood vessels from pre-existing vasculature). As its name implies, VEGF activity is restricted mainly to cells of the vascular endothelium, although it has an effect on a limited number of other cell types (e.g., stimulation monocyte/macrophage migration).

VEGF has been implicated with poor prognosis in breast cancer. The overexpression of VEGF may be an early step in the process of metastasis, a step involved in the "angiogenic" switch. Although VEGF has been correlated with poor survival, its exact mechanism of action in the progression of tumors remains unclear. VEGF is also released in rheumatoid arthritis in response to TNF-alpha, increasing endothelial permeability and swelling and also stimulating angiogenesis (formation of capillaries). Once released, VEGF may elicit several responses. It may cause a cell to survive, move, or further differentiate.

ANTIBODY TYPE *Rabbit Monoclonal*
CLONE *RBT-VEGF*
ISOTYPE *IgG*
CONTROL *Angiosarcoma, Angioma*
LOCALIZATION *Cytoplasmic, Cell Surface*

CAT. #	PRESENTATION	VOL/QTY
BSB 6050	Tinto Prediluted	3.0 ml
BSB 6051	Tinto Prediluted	7.0 ml
BSB 6052	Tinto Prediluted	15.0 ml
BSB 6053	Concentrated	0.1 ml
BSB 6054	Concentrated	0.5 ml
BSB 6055	Concentrated	1.0 ml
BSB 6056	control slides	5

Villin



IHC of Villin on an FFPE Colon Tissue

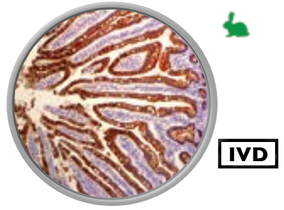
Villin is an actin-binding protein that contains gelsolin domains capped by a "headpiece" consisting of a fast and independently-folding three-helix bundle stabilized by hydrophobic interactions. The headpiece domain is a commonly-studied protein in molecular dynamics due to its fast-folding kinetics and short primary sequence. It is a regulator of the actin cytoskeleton and is expressed mainly in the brush border in animals.

Anti-Villin labels the brush border area in the gastrointestinal mucosal epithelium. This antibody has been useful in differentiating Gastrointestinal Adenocarcinoma, Neuroendocrine Carcinomas and Ovarian Adenocarcinomas from Adenocarcinomas of other organs. Also labeled by this antibody are Merkel cells of the skin.

ANTIBODY TYPE *Mouse Monoclonal*
CLONE *CWWB1*
ISOTYPE *IgG1*
CONTROL *Small Bowel Mucosa, Colonic Mucosa*
LOCALIZATION *Cytoplasmic, Membranous*

CAT. #	PRESENTATION	VOL/QTY
BSB 6015	Tinto Prediluted	3.0 ml
BSB 6016	Tinto Prediluted	7.0 ml
BSB 6017	Tinto Prediluted	15.0 ml
BSB 6018	Concentrated	0.1 ml
BSB 6019	Concentrated	0.5 ml
BSB 6020	Concentrated	1.0 ml
BSB 6021	control slides	5

Villin, RMab



IHC of Villin on an FFPE Colon Tissue

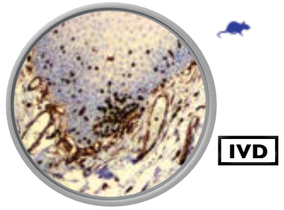
Villin is an actin-binding protein that contains gelsolin domains capped by a "headpiece" consisting of a fast and independently-folding three-helix bundle stabilized by hydrophobic interactions. The headpiece domain is a commonly-studied protein in molecular dynamics due to its fast-folding kinetics and short primary sequence. It is a regulator of the actin cytoskeleton and is expressed mainly in the brush border of the GI mucosal epithelium in animals.

Anti-Villin labels the brush border area in the gastrointestinal mucosal epithelium. This antibody has been useful in differentiating Gastrointestinal Adenocarcinoma, Neuroendocrine Carcinomas and Ovarian Adenocarcinomas from Adenocarcinomas of other organs. Also labeled by this antibody are Merkel cells of the skin.

ANTIBODY TYPE *Rabbit Monoclonal*
CLONE *EP163**
ISOTYPE *IgG*
CONTROL *Small Bowel Mucosa, Colonic Mucosa*
LOCALIZATION *Cytoplasmic, Membranous*

CAT. #	PRESENTATION	VOL/QTY
BSB 2300	Tinto Prediluted	3.0 ml
BSB 2301	Tinto Prediluted	7.0 ml
BSB 2302	Tinto Prediluted	15.0 ml
BSB 2303	Concentrated	0.1 ml
BSB 2304	Concentrated	0.5 ml
BSB 2305	Concentrated	1.0 ml
BSB 2306	control slides	5

Vimentin



IHC of Vimentin on an FFPE Cervix Tissue

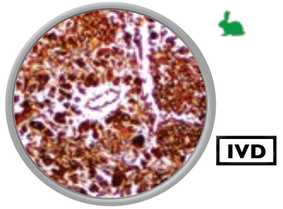
Vimentin is a member of the intermediate filament family of proteins. Intermediate filaments are an important structural feature of eukaryotic cells. Together with microtubules and actin microfilaments, they make up the cytoskeleton.

Expression of vimentin, when used in conjunction with keratin, is helpful in distinguishing melanomas from Undifferentiated Carcinomas and Large-Cell Lymphomas. All Melanomas and Schwannomas react strongly with vimentin. This antibody recognizes a 57 kDa intermediate filament. It labels a variety of mesenchymal cells, including melanocytes, lymph cells, endothelial cells and fibroblasts. Non-reactivity of vimentin antibody is often considered more useful than its presence, since there are a few tumors that do not contain vimentin (e.g., Hepatoma and Seminoma).

ANTIBODY TYPE *Mouse Monoclonal*
CLONE *V9*
ISOTYPE *IgG1/K*
CONTROL *Tonsil, Lymph Node*
LOCALIZATION *Cytoplasmic*

CAT. #	PRESENTATION	VOL/QTY
BSB 6022	Tinto Prediluted	3.0 ml
BSB 6023	Tinto Prediluted	7.0 ml
BSB 6024	Tinto Prediluted	15.0 ml
BSB 6025	Concentrated	0.1 ml
BSB 6026	Concentrated	0.5 ml
BSB 6027	Concentrated	1.0 ml
BSB 6028	control slides	5

Vimentin, RMab



IHC of Vimentin on an FFPE Melanoma Tissue

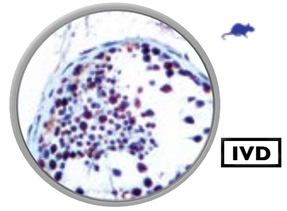
Vimentin is a member of the intermediate filament family of proteins. Intermediate filaments are an important structural feature of eukaryotic cells. Together with microtubules and actin microfilaments, they make up the cytoskeleton.

Expression of vimentin, when used in conjunction with keratin, is helpful in distinguishing melanomas from Undifferentiated Carcinomas and Large-Cell Lymphomas. All Melanomas and Schwannomas react strongly with vimentin. This antibody recognizes a 57 kDa intermediate filament. It labels a variety of mesenchymal cells, including melanocytes, lymph cells, endothelial cells and fibroblasts. Non-reactivity of vimentin antibody is often considered more useful than its presence, since there are a few tumors that do not contain vimentin (e.g., Hepatoma and Seminoma).

ANTIBODY TYPE *Rabbit Monoclonal*
CLONE *EP21**
ISOTYPE *IgG*
CONTROL *Tonsil, Lymph Node, Colon*
LOCALIZATION *Cytoplasmic*

CAT. #	PRESENTATION	VOL/QTY
BSB 2307	Tinto Prediluted	3.0 ml
BSB 2308	Tinto Prediluted	7.0 ml
BSB 2309	Tinto Prediluted	15.0 ml
BSB 2310	Concentrated	0.1 ml
BSB 2311	Concentrated	0.5 ml
BSB 2312	Concentrated	1.0 ml
BSB 2313	control slides	5

WT1



IHC of WT1 on an FFPE Testicular Cancer Tissue

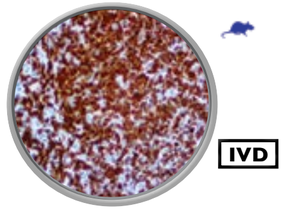
Wilms' Tumor Protein (WT1) is a suppressor gene located on Chromosome 11p13. Mutations of the WT1 gene on Chromosome 11 are observed in approximately 20% of Wilms tumors. At least half of the Wilms tumors with mutations in WT1 also carry mutations in CTNNB1, the gene encoding the proto-oncogene beta-catenin.

Wilms' tumor is a neoplasm of the kidneys that typically occurs in children. It is also known as a Nephroblastoma. WT1 has been identified in proliferative mesothelial cells, Malignant Mesothelioma, Ovarian Cystadenocarcinoma, Gonadoblastoma, Nephroblastoma and Desmoplastic Small Round Cell Tumor. Lung Adenocarcinomas rarely stain positive with this antibody.

ANTIBODY TYPE *Mouse Monoclonal*
CLONE *6F-H2*
ISOTYPE *IgG1/K*
CONTROL *Malignant Mesothelioma, Kidney, Testicle*
LOCALIZATION *Nuclear*

CAT. #	PRESENTATION	VOL/QTY
BSB 6029	Tinto Prediluted	3.0 ml
BSB 6030	Tinto Prediluted	7.0 ml
BSB 6031	Tinto Prediluted	15.0 ml
BSB 6032	Concentrated	0.1 ml
BSB 6033	Concentrated	0.5 ml
BSB 6034	Concentrated	1.0 ml
BSB 6035	control slides	5

ZAP-70



IVD

IHC of ZAP-70 on an FFPE Tonsil Tissue

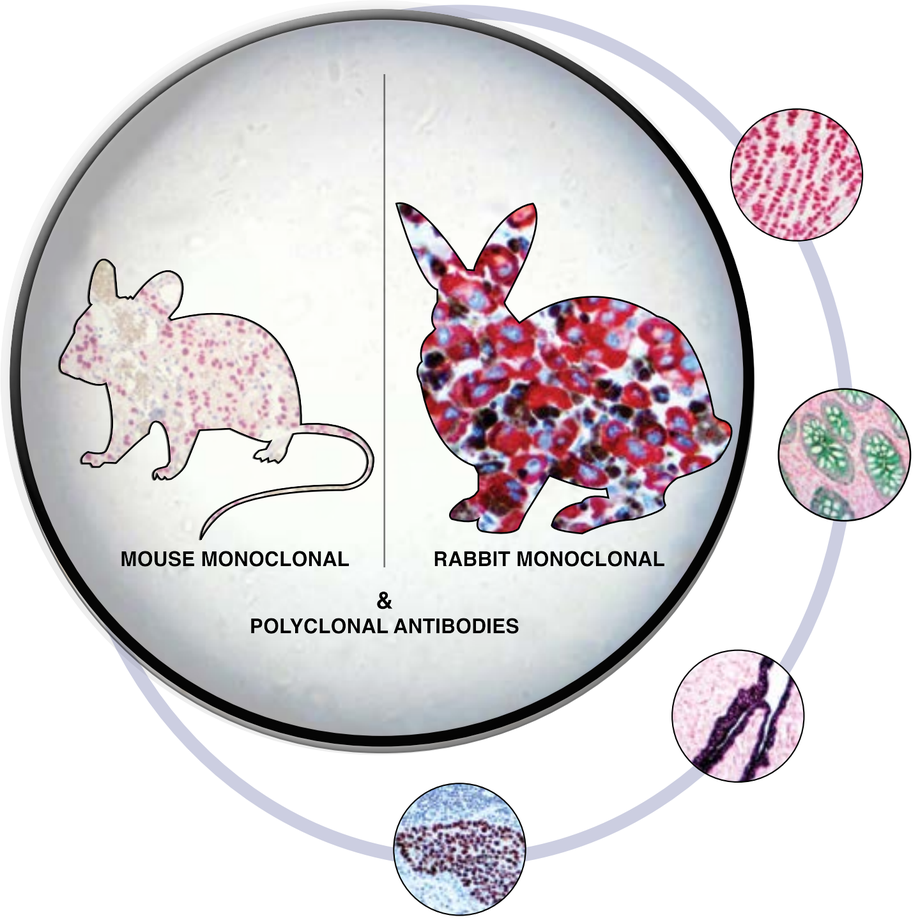
ZAP-70 is an abbrevation for Zeta-chain-associated protein kinase 70 (70 is the molecular weight in kDa). The protein is a member of the protein-tyrosine kinase family. ZAP-70 is normally expressed in T-cells and natural killer cells and has a critical role in the initiation of T-cell signaling.

ZAP-70 in B-cells is used as a prognostic marker in identifying different forms of Chronic Lymphocytic Leukemia (CLL). ZAP-70 protein is expressed in leukemic cells in approximately 25% of Chronic Lymphocytic Leukemia (CLL) cases as well. ZAP-70 expression is an excellent surrogate marker for the distinction between the Ig-mutated (ZAP-70 negative) and Ig-unmutated (ZAP-70 positive) CLL subtypes and can identify patient groups with divergent clinical courses. The ZAP-70 positive Ig-unmutated CLL cases have a poorer prognosis.

ANTIBODY TYPE	*Mouse Monoclonal*
CLONE	*2F3.2*
ISOTYPE	*IgG2a*
CONTROL	*Tonsil, Lymph Node, Chronic Lymphocytic Leukemia*
LOCALIZATION	*Cytoplasmic*

CAT. #	PRESENTATION	VOL/QTY
BSB 6036	Tinto Prediluted	3.0 ml
BSB 6037	Tinto Prediluted	7.0 ml
BSB 6038	Tinto Prediluted	15.0 ml
BSB 6039	Concentrated	0.1 ml
BSB 6040	Concentrated	0.5 ml
BSB 6041	Concentrated	1.0 ml
BSB 6042	control slides	5

IVD Antibodies and Detection Systems for Immunohistochemistry

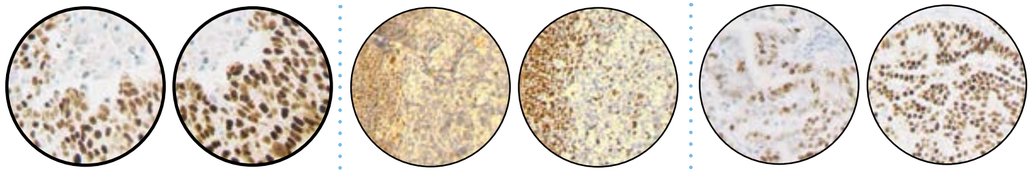


High-Quality Antibodies Optimized for IHC

Why Rabbit Monoclonal Antibodies?

- Higher Affinity
- Stronger Signal
- Less Background
- Multiple Applications (IHC , Flow Cytometry, etc.)
- Increased Sensitivity
- Higher Specificity
- Supported by research publications
- Large portfolio of over 130 Rabbit Monoclonal Antibodies

Mouse and Rabbit Monoclonal Comparison



ER Mouse Monoclonal

ER Rabbit Monoclonal

Cyclin D1 Mouse Monoclonal

Cyclin D1 Rabbit Monoclonal

PR Mouse Monoclonal

PR Rabbit Monoclonal

Both antibodies in each comparison were evaluated using the same epitope retrieval, detection kit, IHC protocols and methodologies. All results produced using CDI Ancillaries and ImmunoDetector HRP/DAB Kit (BSB0001).

Ordering Info: Mouse and Rabbit Antibodies

Predilute/Ready-to-use

3 mL Predilute (30 tests)
7 mL Predilute (70 tests)
15 mL Predilute (150 tests)

- No need for optimization
- Compatible with biotin or polymer based detection systems
- Predilute/Ready-to-use: diluted in proprietary protein blocker/ stabilizer

Ask us about samples!

Concentrated

.1 mL Concentrate
.5 mL Concentrate
1 mL Concentrate

- Cost effective solution
- Compatible with biotin or polymer based detection systems
- Can be optimized to meet the needs of each laboratory
- Concentrated antibodies diluted in proprietary protein blocker/ stabilizer

Breast Markers

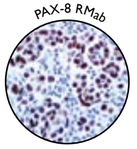
Antibody Name	Clone
CK 14	LL002
CK 14 RMab	EP61
E-Cadherin RMab	EP6
Estrogen Receptor RMab	RBT11
FOXA1	Polyclonal
GCDFP-15	23A3
GCDFP-15 RMab	EP95
HER-2 neu	HER-24
HER-2 neu RMab	RBT-HER2
Ki-67 RMab	EP5
p120 Catenin RMab	EP66
Progesterone Receptor	BSB2
Progesterone Receptor RMab	RBT22
Topo IIa RMab	RBT-Topo2a

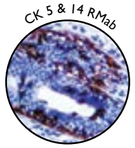
Carcinoma Markers

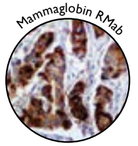
Arginase-1	Polyclonal
BCA-225	Cu-18
BG8 LewisY	F3
CA-125	OC125
CA-125 RMab	EP48
CA19-9	121SLE
Carbonic Anhydrase 9 RMab	EP161
CD44	MRQ-13
Claudin-1	Polyclonal
Collagen Type IV	CIV22
CK 4 RMab	EP4
CK 5 RMab	EP24
CK 5 & 14 RMab	EP24/ EP61
CK 5/14/p63 RMab	EP24/EP61/EP174
CK 5/6	D5 and 16B4
CK 5/6/ERG RMab	EP24/EP67/EP111
CK 5 & 6 RMab	EP24/ EP67
CK 5 & ERG RMab	EP24/EP111
CK 6 RMab	EP67
CK 7	OV-TL 12/30
CK 8 RMab	EP17

Carcinoma Markers (Cont.)

CK 10 RMab	EP97
CK 13 RMab	EP69
CK 15 RMab	EP14
CK 17 RMab	EP98
CK 20	Ks20.8
CK 20 RMab	EP23
Cytokeratin LMW	AE1
CK LMW CAM5.2	CAM5.22
CK HMW,AE3	AE3
CK HMW 34BE12	34BetaE12
CK 35BH11	35betaH11
CK Cocktail	AE1/AE3
CK OSCAR	OSCAR
EpCAM	MOC-31
EpCAM	Ber-EP4
GLUT1 RMab	EP141
Glypican-3	1G12
Inhibin, alpha	R1
Ksp-Cadherin	MRQ-33
Mammaglobin RMab	EP249
MUC5AC	CLH2
MUC6	CLH5
NGFR	NGFR/c10
PAX-2	Polyclonal
PAX-8 RMab	ZR-1
Renal Cell Carcinoma	PN-15
S100P RMab	EP186
TAG-72	Tag72-22
Thyroglobulin RMab	EP250
Uroplakin III	Polyclonal
Villin	CWWB1
Villin RMab	EP163
WT1	6F-H2

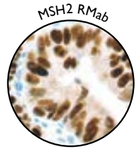


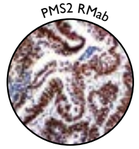




Colon & Gastrointestinal

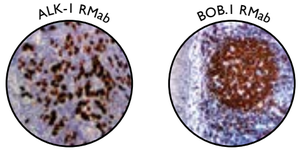
Beta-Catenin	14
Beta-Catenin RMab	EP35
CD 117 RMab	EP10
CDX2 RMab	EP25
CEA	Polyclonal
CEA	CEA31
COX-2 RMab	RBT-COX2
CK 7 & CDX2 RMab	EP16/ EP25
CK 7 RMab	EP16
CK 8&18	B22.1/B23.1
CK 8&18 RMab	EP17 & EP30
CK 19 RMab	EP72
DOG-1 RMab	RBT-DOG
MLH1	G168-728
MSH2	G219-1129
MSH2 RMab	RBT-MSH2
MSH6	44
MSH6 RMab	EP49
MUC1	MRQ-17
MUC1 RMab	EP85
MUC2	996/1
MUC2 RMab	EP187
PMS2 RMab	EP51





Leukemia/Lymphoma

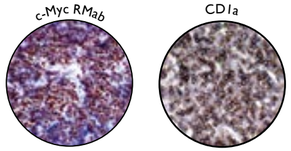
ALK-1 RMab	RBT-ALK1
Annexin A1	MRQ-3
bcl-2	BCL2/A4
bcl-2 RMab	EP36
bcl-6 RMab	RBT-bcl6
BOB.1 RMab	EP114
c-Myc	9 E10
c-Myc RMab	EP121
CD1a	EP80
CD2	AB75
CD3 Epsilon RMab	RBT-CD3e
CD3 RMab	RBT-CD3



CD4 RMab	RBT-CD4
CD5 RMab	RBT-CD5
CD7	LP15
CD7 RMab	EP132
CD8	C8/144B
CD10	56C6
CD10 RMab	EP195
CD11b RMab	EP45
CD11c RMab	EP157
CD13	38C12
CD13 RMab	EP117
CD14	7
CD14 RMab	EP128
CD15	SPM119
CD19	MRQ-36
CD19 RMab	EP169
CD20	L26
CD21 RMab	EP64
CD23	1B12
CD23 RMab	EP75
CD25	4C9
CD30	Ber-H2
CD33	PWS44
CD35	RLB25
CD35 RMab	EP197
CD38	SPC32
CD38 RMab	EP135

Leukemia/Lymphoma (Cont.)

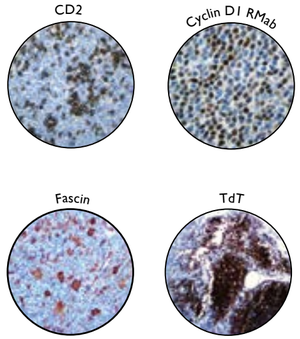
CD41 RMab	EP178
CD45	2B11 & PD7/26
CD45R	MB1
CD45RA	4KB5
CD45RO	UCHL-1
CD56	123C3.D5
CD57	CD57/B8
CD61	2f2
CD68	CD68/G2
CD71	MRQ-48
CD74	LN2
CD79a	JCB117
CD99	CD99/B5
CD123, IL-3Ra	CD123-D3
CD138	B-A38
CD138 RMab	EP201
CD163	MRQ-26
Cyclin B1 RMab	RBT-B1
CD45RA	4KB5
CD45RO	UCHL-1
CD56	123C3.D5
CD57	CD57/B



CD61	2f2
CD68	CD68/G2
CD71	MRQ-48
CD74	LN2
CD79a	JCB117
CD99	CD99/B5
CD123, IL-3Ra	CD123-D3
CD138	B-A38
CD138 RMab	EP201
CD163	MRQ-26
Cyclin B1 RMab	RBT-B1
Cyclin D1 RMab	RBT-14
Fascin	55k-2
Follicular Dendritic Cell	CNA.42
FOXP1 RMab	EP137
Galectin-3	9C4
Glycophorin A	GA-R2
Granzyme B	Polyclonal

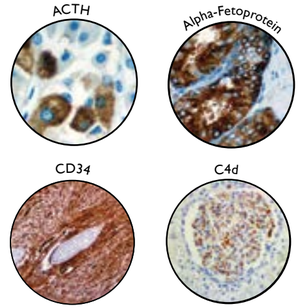
Leukemia/Lymphoma (cont.)

Granzyme B RMab	EP230
Hemoglobin A RMab	EP124
IgA	Polyclonal
IgD	Polyclonal
IgG	Polyclonal
IgG4	MRQ-44
IgG4 RMab	EP138
IgM	Polyclonal
Kappa Light Chains	Kap-56
Lambda	Lamb14
Langerin	12D6
Lysozyme	Polyclonal
Lysozyme RMab	EP134
MUM1 RMab	EP190
Myeloperoxidase	Polyclonal
Myeloperoxidase RMab	EP151
OCT-2 RMab	EP115
PAX-5 RMab	RBT-PAX5
PD-1	MRQ-22
Perforin	5B10
PU.1 RMab	EP18
SOX-11	CL0142
Spectrin	RBC2/3D5
T-bet RMab	MRQ-46
TCL1 RMab	EP105
TIA-1	TIA-1
TdT	Polyclonal
TdT RMab	RBT-TdT
TRAcP	9c5
Zap-70	2F3.2



Other Markers

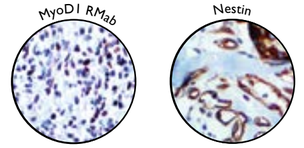
ACTH	Polyclonal
Alpha-Fetoprotein	Polyclonal
Alpha-Fetoprotein RMab	EP209
Bax RMab	E63
Bcl-x RMab	EP94
c-Met RMab	EP1454Y
C3d	Polyclonal
C4d	Polyclonal



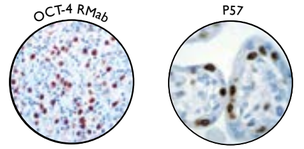
CA15-3	DF3
Cadherin-6 RMab	EP217
Calcitonin	Polyclonal
Calcitonin RMab	EP92
Calponin	CALP-A6
CD31	1A10
CD34	QBEnd/10
CD34 RMab	EP88
Claudin-5 RMab	EP224
Clusterin RMab	EP181
Cyclin E1 RMab	EP126
Fli-1	G146-22
FOXP3	Polyclonal
FSH	Polyclonal
Gastrin	Polyclonal
GFAP	G-A-5
GFAP RMab	EP13
GH	Polyclonal
Glucagon	Polyclonal
Glucagon RMab	EP74
hCG	CG04+CG05
HSA/Hep-Par1	OCH1E5
Histone H3 Phospho	Polyclonal
HLA-DR alpha RMab	EP96
HLA-DRB1 beta RMab	EP191

Other Markers (cont.)

hPL	Polyclonal
hPL RMab	EP241
Insulin	Polyclonal
Insulin RMab	EP125
LH	Polyclonal
LI-Cadherin RMab	EP86
Macrophage (HAM-56)	HAM56
MCM2 RMab	RBT-MCM2
MCM3 RMab	EP202
MCM5 RMab	RBT-MCM5
MDR-1	JSB-1
Mesothelin RMab	EP140
Myelin Basic Protein	Polyclonal
Myelin Basic Protein RMab	EP207
MyoD1 RMab	EP212
Nestin	Polyclonal

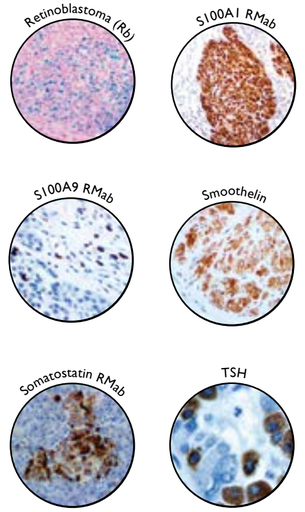


NeuN	A60
Neuroblastoma	NB84a
Neurofilament	2F11
Neurofilament RMab	EP79
OCT-4 RMab	EP143
p21	DCS-60.22a
p27	SX53G8
p40	Polyclonal
p53	DO7
p57	Kp10
Parathyroid Hormone (PTH)	MRQ-31
Parvovirus	R92F6
PDGFR-B	Polyclonal
PGP 9.5	Polyclonal
PLAP RMab	EPR6141
Prolactin	PRL02
Prolactin RMab	EP193



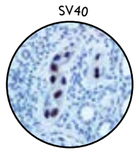
Other Markers (cont.)

Retinoblastoma (Rb)	SPM 353
S100A1 RMab	EP184
S100A8/MRP8 RMab	EP90
S100A9 RMab	EP185
S100Beta RMab	EP32
Smoothelin	R4A1
Somatostatin	Polyclonal
Somatostatin RMab	EP130
SOX-10	Polyclonal
Survivin RMab	EP119
Synaptophysin	Polyclonal
Synaptophysin RMab	EP158
TCR Beta F1	8A3
Thrombomodulin RMab	EP175
TLE1	Polyclonal
TSH	TSH01/02
VEGF RMab	RBT-VEGF



Infectious Disease

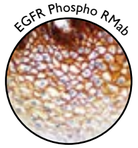
Adenovirus	20/11& 2/6
Cytomegalovirus	8B1.2, 1G5.2 & 2D4.2
Epstein Barr Virus	CS1-4
Epstein Barr Virus, RMab	MRQ-47
Helicobacter pylori	Polyclonal
Hepatitus B Virus Core	Polyclonal
Hepatitus B Virus Surface Antigen	T9
Herpes Simplex Virus I	Polyclonal
Herpes Simplex Virus II	Polyclonal
HPV	SB 24
Pneumocystis carinii	3F6
SV40	Pab101
Toxoplasma gondii	Polyclonal
Varicella Zoster Virus	SG1-1, SG1- SG4, NCP-1 & IE-62

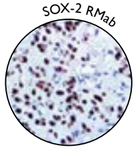

SV40


Varicella Zoster Virus

Lung Markers

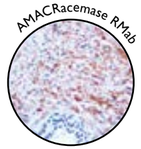
Calretinin RMab	EP1798
Chromogranin A	LK2H10
CK 18 RMab	EP30
EGFR	31G7
EGFR Phospho RMab	EP11
EMA	E29
Napsin A RMab	EP205
NSE	SPM347
SOX-2 RMab	EP103
TTF-1	8G7G3/1


EGFR Phospho RMab

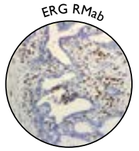

SOX-2 RMab

Prostate

AMACRacemase RMab	13H4
Androgen Receptor	AR-D12
ERG RMab	EP111
p63 RMab (International only)	EP174
PSA	BSB7
PSA RMab	RBT-PSA
PSAP	PASE/4LJ
PSAP RMab	EP53
PSMA RMab	EP192
PSP94/MSMB RMab	EP203


AMACRacemase RMab


Androgen Receptor


ERG RMab

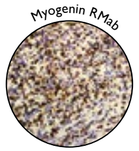

PSAP

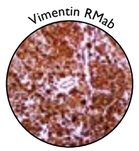
Skin & Mesenchyme

A-1-Antichymotrypsin	Polyclonal
A-1-Antitrypsin	Polyclonal
Actin, Muscle Specific	HHF35
Actin, Smooth Muscle	ASM/H12
Caldesmon	CALD-31
CD63	NKI/C3
Desmin	D33
Desmin RMab	EP15
Factor VIII-Related Antigen	Polyclonal
Factor XIIIa RMab	EP3372
HHV-8	13B10
INI-1	25
Langerin	12D6
MART-1	M2-7C10
MART-1	A103
MART-1 & Tyrosinase	M2-7C10 & Ty/G5
Melanoma KBA.62	KBA.621
Melanoma PNL2	PNL21
Melanosome HMB45	HMB-45
MiTF	C5/D5
Myogenin	F5D
Myogenin RMab	EP162
Myoglobin	Polyclonal

Skin & Mesenchyme (Cont.)

Myoglobin RMab	EP87
Myosin, Smooth Muscle	SMM-H24
Podoplanin	D2-40
S-100 Monoclonal	4C4.9
TFE3	Polyclonal
Tryptase	G3
Tryptase RMab	EP259
Tyrosinase	Ty/G5
Vimentin	V9
Vimentin RMab	EP21


Myogenin RMab


Vimentin RMab

IHC Detection Systems

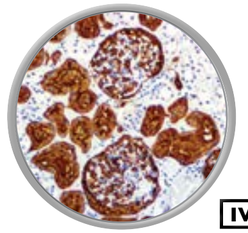
- ImmunoDetector HRP
- ImmunoDetector AP
- M/R PolyDetector HRP
- M/R PolyDetector AP
- M/R PolyDetector PLUS HRP

Substrate Chromogens

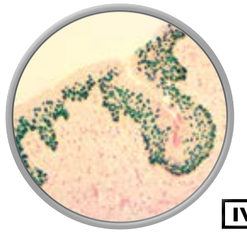
HRP Chromogens	AP Chromogens
DAB	Alk Magenta
AEC	Alk Blue *(Ready-To-Use)*
HRP Black	Alk Red *(Ready-To-Use)*
HRP Green	Alk Brown *(Ready-To-Use)*

ImmunoDetector HRP

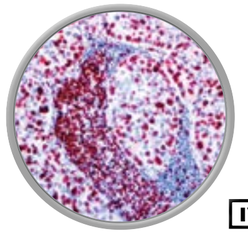
For the Immunohistochemical detection of antigens in cells and formalin-fixed or frozen tissues


IVD

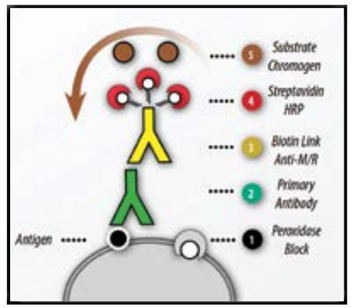
IHC of CD10 on an FFPE Kidney Tissue


IVD

IHC of p63 on an FFPE Skin Tissue


IVD

IHC of Ki67 on an FFPE Breast Carcinoma Tissue



- Biotin-streptavidin immunohistochemistry detection technology.
- Universal ready-to-use formulation detects mouse or rabbit antibodies .
- Optimized for use with Bio SB Tinto Prediluted antibodies.
- Kits available in mouse/rabbit configurations.
- All kits manufactured according to US FDA and ISO 13485 Guidelines.

CAT. #	PRESENTATION	VOL
ImmunoDetector HRP Detection Systems		
BSB 0001	Mouse/Rabbit ImmunoDetector HRP w/DAB	15.0 ml
BSB 0002	Mouse/Rabbit ImmunoDetector HRP w/AEC	15.0 ml
BSB 0003	Mouse/Rabbit ImmunoDetector HRP w/DAB	50.0 ml
BSB 0004	Mouse/Rabbit ImmunoDetector HRP w/AEC	50.0 ml
BSB 0005	Mouse/Rabbit ImmunoDetector HRP w/DAB	100.0 ml
BSB 0006	Mouse/Rabbit ImmunoDetector HRP w/AEC	100.0 ml
BSB 0007	Mouse/Rabbit ImmunoDetector HRP w/DAB	200.0 ml
BSB 0008	Mouse/Rabbit ImmunoDetector HRP w/AEC	200.0 ml
BSB 0009	Mouse/Rabbit ImmunoDetector HRP w/DAB	1000.0 ml
BSB 0010	Mouse/Rabbit ImmunoDetector HRP w/AEC	1000.0 ml

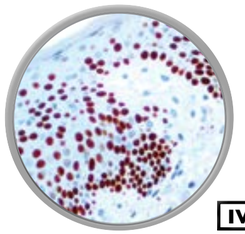
CAT. #	PRESENTATION	VOL
ImmunoDetector HRP Link & label		
BSB 0001LH	Mouse/Rabbit ImmunoDetector Biotin	15.0 ml
BSB 0003LH	Mouse/Rabbit ImmunoDetector Biotin	50.0 ml
BSB 0005LH	Mouse/Rabbit ImmunoDetector Biotin	100.0 ml
BSB 0007LH	Mouse/Rabbit ImmunoDetector Biotin	200.0 ml
BSB 0009LH	Mouse/Rabbit ImmunoDetector Biotin	1000.0 ml
BSB 0001L	Mouse/Rabbit ImmunoDetector Biotin Link	15.0 ml
BSB 0003L	Mouse/Rabbit ImmunoDetector Biotin Link	50.0 ml
BSB 0005L	Mouse/Rabbit ImmunoDetector Biotin Link	100.0 ml
BSB 0007L	Mouse/Rabbit ImmunoDetector Biotin Link	200.0 ml
BSB 0009L	Mouse/Rabbit ImmunoDetector Biotin Link	1000.0 ml
BSB 0001H	Mouse/Rabbit ImmunoDetector HRP Label	15.0 ml
BSB 0003H	Mouse/Rabbit ImmunoDetector HRP Label	50.0 ml
BSB 0005H	Mouse/Rabbit ImmunoDetector HRP Label	100.0 ml
BSB 0007H	Mouse/Rabbit ImmunoDetector HRP Label	200.0 ml
BSB 0009H	Mouse/Rabbit ImmunoDetector HRP Label	1000.0 ml

IVD For *in Vitro* Diagnostic Use

10 tests per ml considering 100µl per tissue

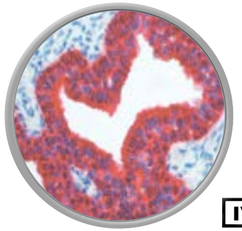
ImmunoDetector AP

For the Immunohistochemical detection of antigens in cells and formalin-fixed or frozen tissues



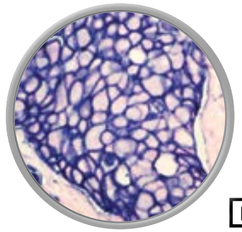
IVD

IHC of p63 on an FFPE Skin Tissue



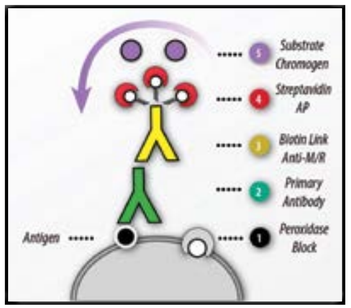
IVD

IHC of Cytokeratin Pan Cocktail AE1 & AE3 on an FFPE Prostate Carcinoma



IVD

IHC of HER-2 neu on an FFPE Breast Carcinoma



- Biotin-streptavidin immunohistochemistry detection technology.
- Universal ready-to-use formulation detects mouse or rabbit antibodies.
- Optimized for use with Bio SB Tinto Prediluted antibodies.
- Kits available in mouse/rabbit configurations.
- All kits manufactured according to US FDA and ISO 13485 Guidelines.

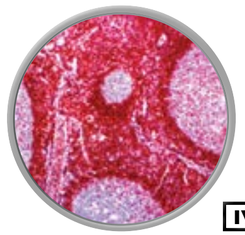
CAT. #	PRESENTATION	VOL
ImmunoDetector AP Detection Systems		
BSB 0082	Mouse/Rabbit ImmunoDetector AP, w/ALK Magenta	15.0 ml
BSB 0083	Mouse/Rabbit ImmunoDetector AP, w/ALK Magenta	50.0 ml
BSB 0084	Mouse/Rabbit ImmunoDetector AP, w/ALK Magenta	100.0 ml
BSB 0085	Mouse/Rabbit ImmunoDetector AP, w/ALK Magenta	200.0 ml
BSB 0086	Mouse/Rabbit ImmunoDetector AP, w/ALK Magenta	1000.0 ml

IVD For *in Vitro* Diagnostic Use

10 tests per ml considering 100µl per tissue

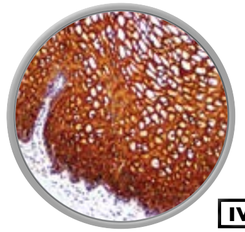
PolyDetector HRP

For the Immunohistochemical detection of antigens in cells and formalin-fixed or frozen tissues



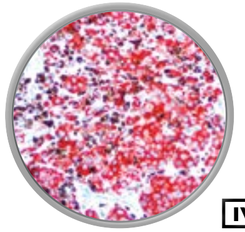
IVD

IHC of bcl2 on an FFPE Tonsil Tissue



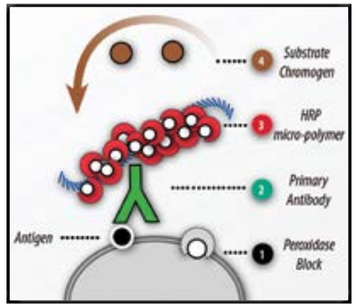
IVD

IHC of Cytokeratin 13 on an FFPE Cervix Tissue



IVD

IHC of S100 on an FFPE Melanoma Tissue



- Non- Fc' micro-polymer detection technology allows for better cell penetration to deliver a highly specific and sensitive signal.
- Universal Ready-to-use formulation detects mouse or rabbit antibodies.
- AP and HRP Systems can be used in multiplex IHC staining.
- Optimized for use with Bio SB Tinto Prediluted antibodies.
- Kits available in mouse/rabbit configurations.
- All kits manufactured according to US FDA and ISO 13485 Guidelines.

CAT. #	PRESENTATION	VOL
Complete PolyDetector HRP Detection Systems		
BSB 0201	Mouse/Rabbit PolyDetector HRP w/DAB	15.0 ml
BSB 0202	Mouse/Rabbit PolyDetector HRP w/AEC	15.0 ml
BSB 0203	Mouse/Rabbit PolyDetector HRP w/DAB	50.0 ml
BSB 0204	Mouse/Rabbit PolyDetector HRP w/AEC	50.0 ml
BSB 0205	Mouse/Rabbit PolyDetector HRP w/DAB	100.0 ml
BSB 0206	Mouse/Rabbit PolyDetector HRP w/AEC	100.0 ml
BSB 0207	Mouse/Rabbit PolyDetector HRP w/DAB	200.0 ml
BSB 0208	Mouse/Rabbit PolyDetector HRP w/AEC	200.0 ml
BSB 0207A	Mouse/Rabbit PolyDetector HRP w/DAB	1000.0 ml
BSB 0208A	Mouse/Rabbit PolyDetector HRP w/AEC	1000.0 ml

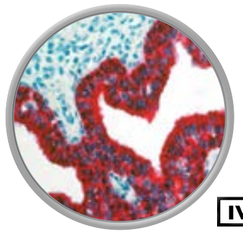
CAT. #	PRESENTATION	VOL
PolyDetector HRP Label – Prediluted		
BSB 0201H	Mouse/Rabbit PolyDetector HRP Label	15.0 ml
BSB 0203H	Mouse/Rabbit PolyDetector HRP Label	50.0 ml
BSB 0205H	Mouse/Rabbit PolyDetector HRP Label	100.0 ml
BSB 0207H	Mouse/Rabbit PolyDetector HRP Label	200.0 ml

IVD For *in Vitro* Diagnostic Use

10 tests per ml considering 100µl per tissue

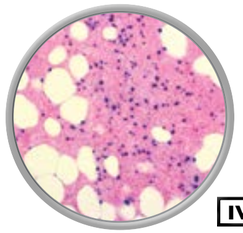
PolyDetector AP

For the Immunohistochemical detection of antigens in cells and formalin-fixed or frozen tissues



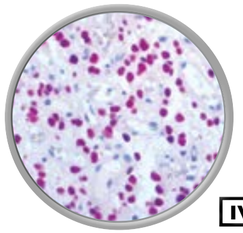
IVD

IHC of CK 8/35BH11 on an FFPE Prostate Tissue



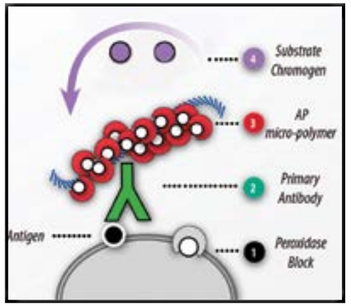
IVD

IHC of FOXP3 on an FFPE Chronic Lymphocytic Leukemia



IVD

IHC of SOX-2 on an FFPE Brain Tissue



- Non- Fc' micro-polymer detection technology allows for better cell penetration to deliver a highly specific and sensitive signal.
- Universal Ready-to-use formulation detects mouse or rabbit antibodies .
- AP and HRP Systems can be used in multiplex IHC staining.
- Optimized for use with Bio SB Tinto Prediluted antibodies.
- Kits available in mouse/rabbit configurations.
- All kits manufactured according to US FDA and ISO 13485 Guidelines.

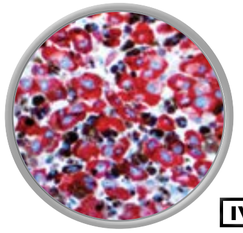
CAT. #	PRESENTATION	VOL
Complete PolyDetector AP Detection Systems		
BSB 0282	Mouse/Rabbit PolyDetector AP w/ALK Magenta	15.0 ml
BSB 0283	Mouse/Rabbit PolyDetector AP w/ALK Magenta	50.0 ml
BSB 0284	Mouse/Rabbit PolyDetector AP w/ALK Magenta	100.0 ml
BSB 0285	Mouse/Rabbit PolyDetector AP w/ALK Magenta	200.0 ml
BSB 0286	Mouse/Rabbit PolyDetector AP w/ALK Magenta	1000.0 ml
PolyDetector AP Label – Prediluted		
BSB 0287	Mouse/Rabbit PolyDetector AP Label	15.0 ml
BSB 0288	Mouse/Rabbit PolyDetector AP Label	50.0 ml
BSB 0289	Mouse/Rabbit PolyDetector AP Label	100.0 ml
BSB 0290	Mouse/Rabbit PolyDetector AP Label	200.0 ml
BSB 0291	Mouse/Rabbit PolyDetector AP Label	1000.0 ml

IVD For *in Vitro* Diagnostic Use

10 tests per ml considering 100µl per tissue

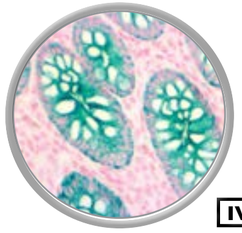
PolyDetector Plus HRP

For the Immunohistochemical detection of antigens in cells and formalin-fixed or frozen tissues



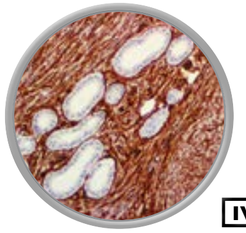
IVD

IHC of Melanoma PNL2 on an FFPE Melanoma Tissue



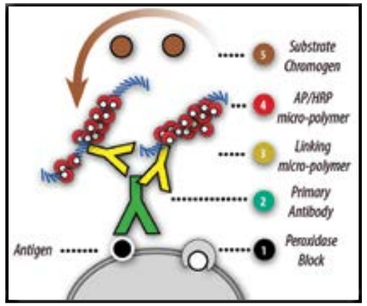
IVD

IHC of CK Oscar on an FFPE Colon Tissue



IVD

IHC of CD34 on an FFPE Dermatofibrosarcoma Protuberans Tissue



- Non- Fc' micro-polymer detection technology allows for better cell penetration to deliver a highly specific and sensitive signal.
- Universal Ready-to-use formulation detects mouse or rabbit antibodies .
- Short incubation times for each polymer.
- Optimized for use with Bio SB Tinto Prediluted antibodies.
- Kits available in mouse/rabbit configurations.
- All kits manufactured according to US FDA and ISO 13485 Guidelines.

CAT. #	PRESENTATION	VOL
Complete PolyDetector PLUS HRP Detection Systems		
BSB 0257	Mouse/Rabbit PolyDetector Plus HRP w/DAB	15.0 ml
BSB 0258	Mouse/Rabbit PolyDetector Plus HRP w/AEC	15.0 ml
BSB 0259	Mouse/Rabbit PolyDetector Plus HRP w/DAB	50.0 ml
BSB 0260	Mouse/Rabbit PolyDetector Plus HRP w/AEC	50.0 ml
BSB 0261	Mouse/Rabbit PolyDetector Plus HRP w/DAB	100.0 ml
BSB 0262	Mouse/Rabbit PolyDetector Plus HRP w/AEC	100.0 ml
BSB 0263	Mouse/Rabbit PolyDetector Plus HRP w/DAB	200.0 ml
BSB 0264	Mouse/Rabbit PolyDetector Plus HRP w/AEC	200.0 ml
BSB 0265	Mouse/Rabbit PolyDetector Plus HRP w/DAB	1000.0 ml
BSB 0266	Mouse/Rabbit PolyDetector Plus HRP w/AEC	1000.0 ml

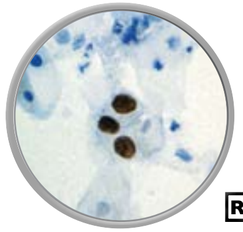
CAT. #	PRESENTATION	VOL
PolyDetector PLUS Link & HRP Label – Prediluted		
BSB 0267	Mouse/Rabbit PolyDetector Plus Link & HRP Label	15.0 ml
BSB 0268	Mouse/Rabbit PolyDetector Plus Link & HRP Label	50.0 ml
BSB 0269	Mouse/Rabbit PolyDetector Plus Link & HRP Label	100.0 ml
BSB 0270	Mouse/Rabbit PolyDetector Plus Link & HRP Label	200.0 ml
BSB 0271	Mouse/Rabbit PolyDetector Plus Link & HRP Label	1000.0 ml
BSB 0272	Mouse/Rabbit PolyDetector Plus Link	15.0 ml
BSB 0273	Mouse/Rabbit PolyDetector Plus Link	50.0 ml
BSB 0274	Mouse/Rabbit PolyDetector Plus Link	100.0 ml
BSB 0275	Mouse/Rabbit PolyDetector Plus Link	200.0 ml
BSB 0276	Mouse/Rabbit PolyDetector Plus Link	1000.0 ml
BSB 0277	Mouse/Rabbit PolyDetector Plus HRP Label	15.0 ml
BSB 0278	Mouse/Rabbit PolyDetector Plus HRP Label	50.0 ml
BSB 0279	Mouse/Rabbit PolyDetector Plus HRP Label	100.0 ml
BSB 0280	Mouse/Rabbit PolyDetector Plus HRP Label	200.0 ml
BSB 0281	Mouse/Rabbit PolyDetector Plus HRP Label	1000.0 ml

IVD For *in Vitro* Diagnostic Use

10 tests per ml considering 100µl per tissue

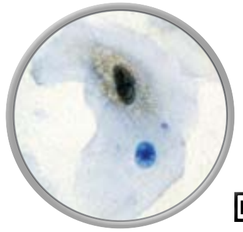
HPV CytoDetector HRP/DAB

For the Detection of HPV in Cervical Cytological Specimens



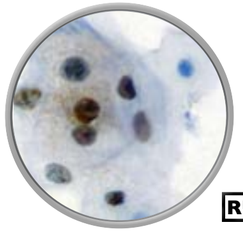
RUO

LSIL, HPV ICC on a CytoLayer Cervical Specimen



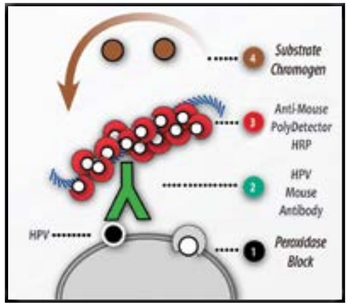
RUO

LSIL, HPV ICC on a CytoLayer Cervical Specimen



RUO

LSIL, HPV ICC on a CytoLayer Cervical Specimen



- Non-Biotin, 2-Step Immunocytochemistry Detection Technology
- Developed with Proprietary Tandem Hyperlabeling Technology used to directly labeled Immunoglobulins with enzymes
- High Sensitivity specially designed for Immunocytochemistry of cervical cytology specimens
- Optimized for ThinPrep, SurePath and CytoLayer liquid-based cytologies
- Kit includes positive cell controls for maximum reliability
- For Research Use Only

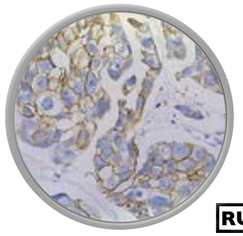
CAT. #	PRESENTATION	QTY
Complete Detection for ICC		
BSB 0248	HPV CytoDetector HRP/DAB	70 tests
BSB 0249	HPV CytoDetector HRP/DAB	150 tests
BSB 0250	HPV CytoDetector HRP/DAB	500 tests
BSB 0248S	HPV CytoDetector Control Slides	5 slides

RUO For Research Use Only

For research use only in the United States.

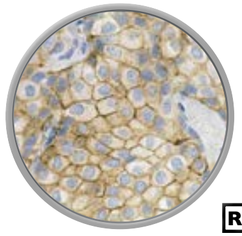
HER-2 neu PolyDetector HRP/DAB

For the Immunohistochemical detection of HER-2 neu in formalin-fixed paraffin-embedded tissues



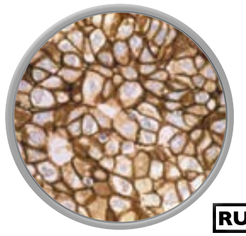
RUO

IHC of HER-2neu 1+ Breast Carcinoma



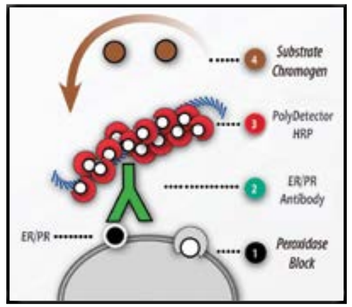
RUO

IHC of HER-2 neu 2+ Breast Carcinoma



RUO

IHC of HER-2 neu 3+ Breast Carcinoma



- Semi-quantitative IHC test for the evaluation of HER2-neu overexpression in FFPE breast cancer tissues
- Non-Biotin, 2-Step Immunohistochemistry Detection Technology developed with Proprietary Tandem Hyperlabeling Technology used to directly labeled Immunoglobulins with enzymes
- Kits include all reagents, solutions, tissues and reagent controls
- For maximum reliability, all kits include Tissue Microarray control slides of FFPE cell lines that are negative, 1+, 2+ and 3+ signals
- For Research Use Only

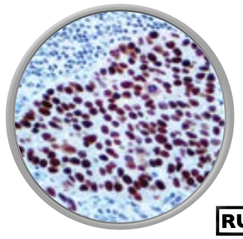
CAT. #	PRESENTATION	QTY
Complete Detection Systems for IHC		
BSB 0245	HER-2 neu PolyDetector HRP/DAB	70 tests
BSB 0246	HER-2 neu PolyDetector HRP/DAB	150 tests
BSB 0247	HER-2 neu PolyDetector HRP/DAB	500 tests

RUO For Research Use Only

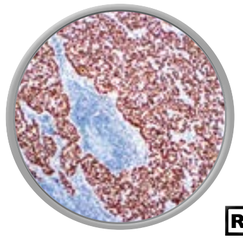
For research use only in the United States.

ER/PR PolyDetector HRP/DAB

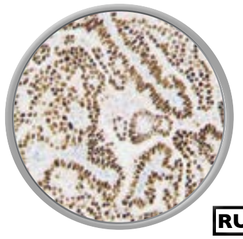
For the Immunohistochemical detection of Estrogen and Progesterone receptors in formalin-fixed paraffin-embedded tissues



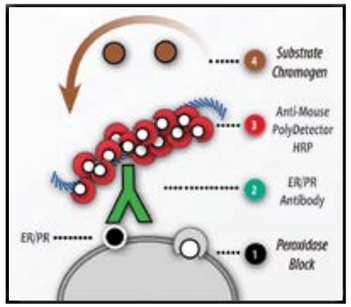
IHC of ER Ductal Breast Carcinoma



IHC of ER Ductal Breast Carcinoma



IHC of PR Ductal Breast Carcinoma



- Immunohistochemical test for the evaluation of ER and PR in FFPE tissues
- Non-Biotin, 2-Step Immunohistochemistry Detection Technology developed with Proprietary Tandem Hyperlabeling Technology used to directly labeled Immunoglobulins with enzymes
- Kits include all reagents, solutions, tissues and reagent controls
- For maximum reliability, all kits include Tissue Microarray control slides of FFPE cell lines that are negative and positive for ER and PR
- For Research Use Only

CAT. #	PRESENTATION	QTY
Complete Detection Systems for IHC		
BSB 0251	ER/PR PolyDetector HRP/DAB	70 tests
BSB 0252	ER/PR PolyDetector HRP/DAB	150 tests
BSB 0253	ER/PR PolyDetector HRP/DAB	500 tests

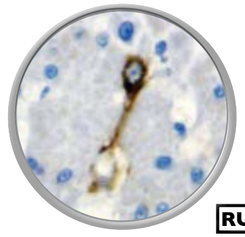
RUO For Research Use Only

For research use only in the United States.

CD117 c-Kit PolyDetector HRP/DAB

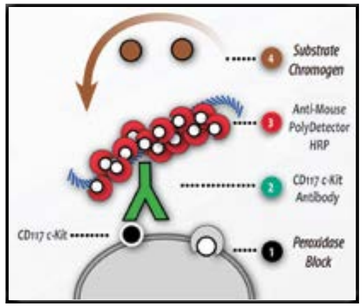
For the Immunohistochemical detection of Estrogen and Progesterone receptors in formalin-fixed paraffin-embedded tissues

IHC of CD117 on an FFPE GIST Tissue



IIHC of CD117 on an FFPE Duodenum Tissue

IHC of CD117 on an FFPE GIST Tissue



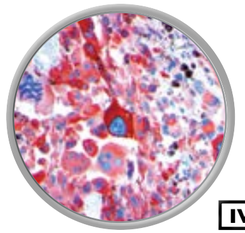
- Immunohistochemical test for the evaluation of CD117 c-Kit in FFPE tissues
- Non-Biotin, 2-Step Immunohistochemistry Detection Technology developed with Proprietary Tandem Hyperlabeling Technology used to directly labeled Immunoglobulins with enzymes
- Kits include all reagents, solutions, tissues and reagent controls
- For maximum reliability, all kits include Tissue Microarray control slides of FFPE tissues that are negative and positive for CD117 c-Kit
- For Research Use Only

CAT. #	PRESENTATION	QTY
Complete Detection Systems for IHC		
BSB 0254	CD117 c-Kit PolyDetector HRP/DAB	60 tests
BSB 0255	CD117 c-Kit PolyDetector HRP/DAB	150 tests
BSB 0256	CD117 c-Kit PolyDetector HRP/DAB	500 tests

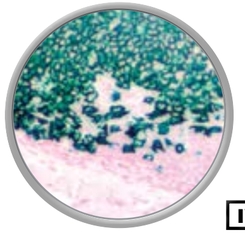
RUO For Research Use Only

For research use only in the United States.

Substrate-Chromogen Systems for use with HRP Detection Systems


IVD

IHC of S100 Beta on an FFPE Melanoma Tissue with AEC


IVD

IHC of CD20 on an FFPE Colon Tissue HRP Green


IVD

IHC of MLH1 on an FFPE Colon Cancer Tissue with HRP Black

- High Sensitivity
- Low Background
- AEC supplied as Ready-to-Use Format
- Environmentally friendly: No solvents used
- DAB supplied as two components
- HRP Black supplied as three components
- HRP Green supplied as two components
- For *in Vitro* Diagnostic Use

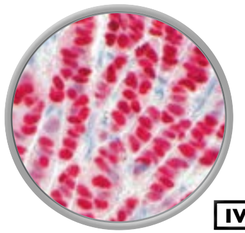
CAT. #	PRESENTATION	VOL
Substrate-Chromogen Systems for use with HRP Detection Systems		
BSB 0011	ImmunoDetector Liquid AEC Ready-To-Use	15.0 ml
BSB 0012	ImmunoDetector Liquid AEC Ready-To-Use	50.0 ml
BSB 0013	ImmunoDetector Liquid AEC Ready-To-Use	100.0 ml
BSB 0014	ImmunoDetector Liquid AEC Ready-To-Use	200.0 ml
BSB 0061A	ImmunoDetector Liquid AEC Ready-To-use	500.0 ml
BSB 0061	ImmunoDetector Liquid AEC Ready-To-use	1000.0 ml
BSB 0015	ImmunoDetector Liquid DAB kit	15.0 ml
BSB 0016	ImmunoDetector Liquid DAB kit	50.0 ml
BSB 0017	ImmunoDetector Liquid DAB kit	100.0 ml
BSB 0018	ImmunoDetector Liquid DAB kit	200.0 ml
BSB 0018A	ImmunoDetector Liquid DAB kit	500.0 ml
BSB 0018B	ImmunoDetector Liquid DAB kit	1000.0 ml
BSB 0019F	ImmunoDetector DAB Buffer	100.0 ml
BSB 0019E	ImmunoDetector DAB Buffer	200.0 ml
BSB 0019D	ImmunoDetector DAB Buffer	500.0 ml
BSB 0019	ImmunoDetector DAB Buffer	1,000.0 ml
BSB 0019A	ImmunoDetector DAB Chromogen	100.0 ml
BSB 0019B	ImmunoDetector DAB Chromogen	50.0 ml
BSB 0019C	ImmunoDetector DAB Chromogen	12.0 ml
BSB 0019G	ImmunoDetector DAB Chromogen	6.0 ml

CAT. #	PRESENTATION	VOL
Substrate-Chromogen Systems for use with HRP Detection Systems (continued)		
BSB 0087	PolyDetector HRP Black kit	15.0 ml
BSB 0088	PolyDetector HRP Black kit	50.0 ml
BSB 0089	PolyDetector HRP Black kit	100.0 ml
BSB 0090A	PolyDetector HRP Black kit	200.0 ml
BSB 0090B	PolyDetector HRP Black kit	500.0 ml
BSB 0090C	PolyDetector HRP Black kit	1000.0 ml
BSB 0128	PolyDetector HRP Green kit	15.0 ml
BSB 0129	PolyDetector HRP Green kit	50.0 ml
BSB 0130	PolyDetector HRP Green kit	100.0 ml
BSB 0131	PolyDetector HRP Green kit	200.0 ml
BSB 0132	PolyDetector HRP Green kit	500.0 ml
BSB 0133	PolyDetector HRP Green kit	1000.0 ml

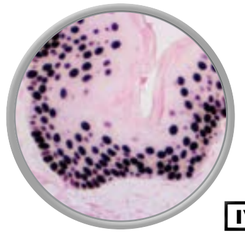
IVD For *in Vitro* Diagnostic Use

10 tests per ml considering 100µl per tissue

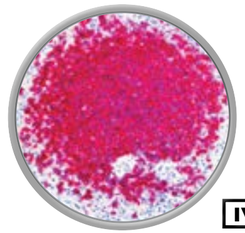
Substrate-Chromogen Systems for use with AP Detection Systems


IVD

IHC of ER on anFFPE Breast Cancer Tissue with ALK Magenta


IVD

IHC of p63 on an FFPE Skin Tissue with ALK Blue


IVD

IHC of CD20 on an FFPE Spleen Tissue with ALK Magenta

- High Sensitivity
- Low Background
- Environmentally friendly: No solvents used
- Alk Blue, Alk Red and Alk Brown supplied as Ready-to-Use Formats
- ALK Magenta supplied as three components
- For *in Vitro* Diagnostic Use

CAT. #	PRESENTATION	VOL
Substrate-Chromogen Systems for use with AP Detection Systems		
BSB 0062	PolyDetector Alk Blue Ready-To-Use	15.0 ml
BSB 0063	PolyDetector Alk Blue Ready-To-Use	50.0 ml
BSB 0064	PolyDetector Alk Blue Ready-To-Use	100.0 ml
BSB 0065	PolyDetector Alk Blue Ready-To-Use	200.0 ml
BSB 0066	PolyDetector Alk Blue Ready-To-Use	1000.0 ml
BSB 0067	PolyDetector Alk Red Ready-To-Use	15.0 ml
BSB 0068	PolyDetector Alk Red Ready-To-Use	50.0 ml
BSB 0069	PolyDetector Alk Red Ready-To-Use	100.0 ml
BSB 0070	PolyDetector Alk Red Ready-To-Use	200.0 ml
BSB 0071	PolyDetector Alk Red Ready-To-Use	1000.0 ml

CAT. #	PRESENTATION	VOL
Substrate-Chromogen Systems for use with AP Detection Systems (continued)		
BSB 0072	PolyDetector Alk Brown Ready-To-Use	15.0 ml
BSB 0073	PolyDetector Alk Brown Ready-To-Use	50.0 ml
BSB 0074	PolyDetector Alk Brown Ready-To-Use	100.0 ml
BSB 0075	PolyDetector Alk Brown Ready-To-Use	200.0 ml
BSB 0076	PolyDetector Alk Brown Ready-To-Use	1000.0 ml
BSB 0077	PolyDetector Alk Magenta	15.0 ml
BSB 0078	PolyDetector Alk Magenta	50.0 ml
BSB 0079	PolyDetector Alk Magenta	100.0 ml
BSB 0080	PolyDetector Alk Magenta	200.0 ml
BSB 0081	PolyDetector Alk Magenta	1000.0 ml

Compatibility Guide

The CDI compatibility guide will help ensure that the correct chromogen, counter-stain, and mounting media is used in any test performed.

KEY

+ = compatible A = Aqua Mounter
- = incompatible P = Perma Mounter

	DAB	AEC	HRP Black	HRP Green	ALK Magenta	ALK Blue	ALK Brown	ALK Red
Methyl Green	+	-	+	-	+	+/-	-	-
Hematoxylin	+	+	+/-	+/-	+	-	+	+
Nuclear Fast Red	+/-	-	+	+	-	+	+/-	-
Mounting Media	P	A	P	P	A/P	P	A	A

IVD For *in Vitro* Diagnostic Use

10 tests per ml considering 100µl per tissue

Slide Holders
Hold slides conveniently for drying and evaluation.
- Made from chemical-resistant polyethylene
- Solid, strong construction with rubber feet for counter top stability

SH1500 15 Slide holder: 4" wide x 3/4" high x 6" deep
SH4000 40 Slide holder: 4" wide x 1" high x 11 3/4" deep
SH7800 78 Slide holder: 7" wide x 3/4" high x 11 3/4" deep

Control Slide Introduction

As the diagnostics market continues to grow, researchers and clinicians have a greater need for a wide variety of high quality and cost effective control slides. Control slides are invaluable tools utilized by institutions when validating reagents, qualifying new products, testing protocols or performing research which requires multiple tissue types. CDI control slides are cost effective, high quality tissues mounted on Hydrophilic Plus slides which are validated for use in immunohistochemical (IHC) and *in situ* hybridization (ISH) applications.

Normal Human TMA (NH-TMA)

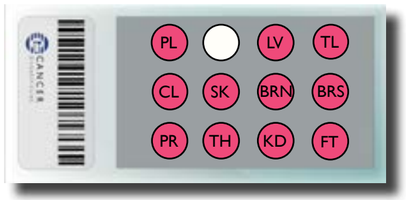
The Normal Human Tissue Micro Array, or NH-TMA, is an excellent way to test an antibody, ISH probe or other reagent on multiple tissues. CDI NH-TMA arrays are available in both 11 or 23-core configurations. CDI NH-TMA's are an excellent way for clinics and research labs to save time and money by allowing multiple tissues to be tested on one slide.

All TMA's have been validated using immunohistochemical methods and are positive for over 100 antibodies. Additionally all TMA's can be custom ordered to be cut and placed on any slide including the CDI Hydrophilic Plus slide.

Tissue Micro Array Features

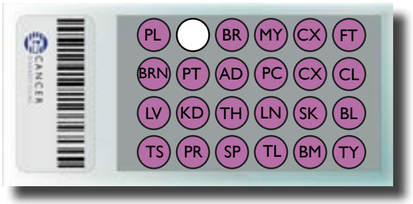
- Easy method of antibody validation.
- Cost effective diagnostic control.
- Test a large number of tissue types on one slide.
- Available in 11 or 23 core format.
- Validated for use with over 100 antibodies used in Immunohistochemistry.

NH-TMA Map



The maps below outline the various normal tissue types used. Each slide comes with a "blank" core for easy orientation & interpretation.

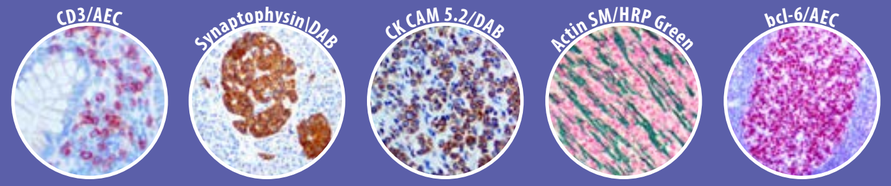
11 Core Normal Human Tissue Micro Array (NH-TMA) Key			
PL - Placenta	Blank	LV - Liver	TL - Tonsil
CL - Colon	SK - Skin	BRN - Brain	BRS - Breast
PR - Prostate	TH - Thyroid	KD - Kidney	FT - Fallopian Tube



23 Core Normal Human Tissue Micro Array (NH-TMA) Key					
PL - Placenta	Blank	BR - Breast	MY - Myometrium	CX - Cervix	FT - Fallopian Tube
BRN - Brain	PT - Pituitary	AD - Adrenal	PC - Pancreas	SG - Salivary	CL - Colon
LV - Liver	KD - Kidney	TH - Thyroid	LN - Lung	SK - Skin	BL - Bladder
TS - Testis	PR - Prostate	SP - Spleen	TL - Tonsil	BM - Bone Marrow	TY- Thymus

Positive IHC Biomarkers for 11 & 23-Core NH-TMA								
Actin S.M.	CD10	CD4	CD7	CK 5/6	Factor XIIIa	MART-1	PAX-2	Synpatophysin
AFP	CD15	CD43	CD79a	CK 7	GCDFP-15	NeuN	PAX-5	Thyroglobulin
AMACRacemase	CD1a	CD45	CD8	CK AE1	GFAP	NSE	PAX-8	TTF-1
bcl-1	CD20	CD45RA	CD99	CK CAM 5.2	HBME-1	Neuorfilament	PIN-4	Vimentin
bcl-2	CD21	CD45RO	CD117	CK Cocktail	hCG	OC-125	PLAP	WT-1
bcl-6	CD23	CD5	CD138	Desmin	Hep-Par 1	p120	PR	**More biomarkers can be used with NH-TMA's.**
Ber-EP4	CD3	CD56	CDX-2	E-Cadherin	HMB-45	p57	PSA	
CA19-9	CD30	CD56	CEA	EMA	hPL	p63	RCC	
Calponin	CD31	CD57	Chromogranin A	ER	Ki-67	Pan Keratin	S100	
Calretinin	CD34	CD68	CK 20	Factor VIII	Mammoglobin	PMSA	TAG-72	

Sample NH-TMA IHC Stains

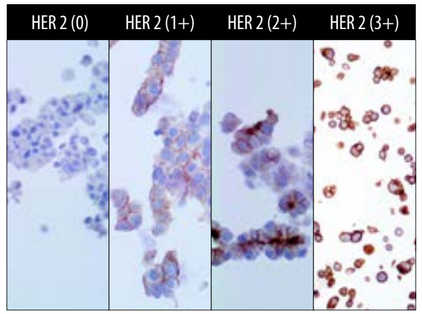


Positive Control Slides

CDI has over 36 types of formalin fixed paraffin embedded tissues and cell lines for your Immunohistochemical and *In situ* hybridization needs. Our large inventory of tissues ranging from Adrenal to Uterus allows us to provide unique cases that other companies cannot. All positive control slides are available in packs of five and are competitively priced. Ask us about custom TMA or positive control slides.

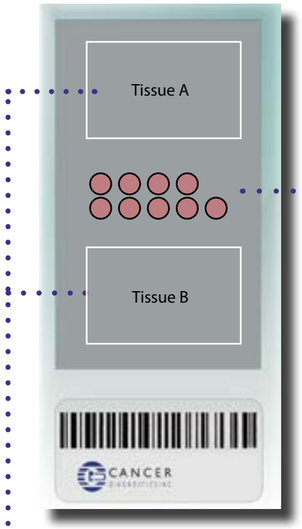
Tissue Micro Arrays	Catalog
11-Core NH-TMA	BSB 0297
23-Core NH-TMA	BSB 0298
NH Tonsil TMA	BSB 0299
Multi-Cancer TMA	BSB 0230
CD117/DOG-1 Gastrointestinal Stromal Tumor TMA	BSB 0231

Cell Line Micro Arrays	Catalog
HER-2 Cell Line Micro Array (0, 1+, 2+, 3+ signal)	BSB 0292
ER/PR Cell Line Micro Array	BSB 0293
HPV Cervical Cancer Cell Line Micro Array (SiHa, Caski, HeLa)	BSB 0294
EGFR Cell Line Micro Array	BSB 0295
ALK-1 Cell Line Micro Array	BSB 0296

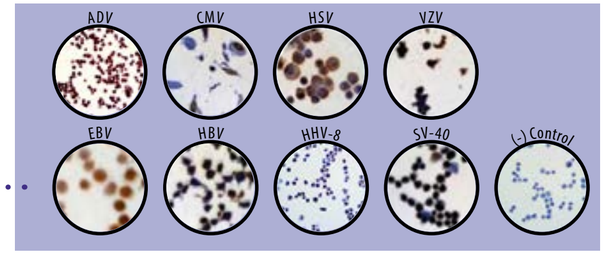


Above: HER-2 Cell Line Micro Array with various signal strengths.

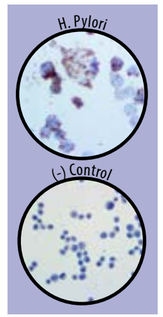
The CDI Infectious Disease cell line micro array, or ID-Array is a simple and cost effective way to test and validate infectious disease markers by immunohistochemical (IHC) or in situ hybridization (ISH). The infectious disease micro array is available in a 9-core or Individual virus configuration, and includes two areas for tissue mounting. All TMA's include negative controls to reduce interpretation error.



Two tissue mounting areas allow for maximum flexibility and integration for users with automated or manual IHC/ISH systems.



Above: 9-Core Multi-Infectious Disease Cell Line Array (BSB 0232)

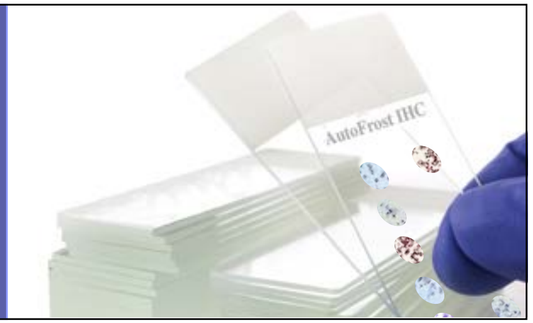


Above: 2-Core H. Pylori Cell Line Array (BSB 0241).

Description	Catalog
Multi ID-Array (9-Core)	BSB 0232
Adenovirus ID-Array (2-Core)	BSB 0233
CMV ID-Array (2-Core)	BSB 0234
HSV ID-Array (2-Core)	BSB 0235
VZV ID-Array (2-Core)	BSB 0236
EBV ID-Array (2-Core)	BSB 0237
HBV ID-Array (2-Core)	BSB 0238
HHV-8 ID-Array (2-Core)	BSB 0239
SV-40 ID-Array (2-Core)	BSB 0240
H.Pylori ID-Array (2-Core)	BSB 0241

ID-Array

- Test multiple infectious disease markers.
- Optimized for IHC & ISH Applications.
- Cost effective solution.
- Test multiple samples at once.
- Two control tissue mounting areas for Manual or Automated IHC/ISH users.



CAT. #	PRESENTATION	VOL
Non-Toxic Deparaffinization Solutions – Xylene and Alcohol Substitutes		
BSB 0134	TintoDeparaffinator 1	1 Lt
BSB 0135	TintoDeparaffinator 1	4 Lt
BSB 0136	TintoDeparaffinator 2	1 Lt
BSB 0137	TintoDeparaffinator 2	4 Lt
Retrievers and Enzymes		
BSB 0023	ImmunoRetreiver 20X with Citrate	50.0 ml
BSB 0020	ImmunoRetreiver 20X with Citrate	200.0 ml
BSB 0021	ImmunoRetreiver 20X with Citrate	500.0 ml
BSB 0022	ImmunoRetreiver 20X with Citrate	1000.0 ml
BSB 0033	ImmunoRetreiver 20X with EDTA	50.0 ml
BSB 0030	ImmunoRetreiver 20X with EDTA	200.0 ml
BSB 0031	ImmunoRetreiver 20X with EDTA	500.0 ml
BSB 0032	ImmunoRetreiver 20X with EDTA	1000.0 ml
BSB 0108	ImmunoDNA Digestor	15.0 ml
BSB 0109	ImmunoDNA Digestor	50.0 ml
BSB 0110	ImmunoDNA Digestor	100.0 ml
BSB 0111	ImmunoDNA Digestor	200.0 ml
BSB 0112	ImmunoDNA Digestor	1000.0 ml
Dilutents and Blockers		
BSB 0113	ImmunoDetector Protein Block / Antibody Diluent	15.0 ml
BSB 0040	ImmunoDetector Protein Block / Antibody Diluent	50.0 ml
BSB 0041	ImmunoDetector Protein Block / Antibody Diluent	100.0 ml
BSB 0114	ImmunoDetector Protein Block / Antibody Diluent	200.0 ml
BSB 0115	ImmunoDetector Protein Block / Antibody Diluent	1000.0 ml
BSB 0103	ImmunoDNA Background Blocker	15.0 ml
BSB 0104	ImmunoDNA Background Blocker	50.0 ml
BSB 0105	ImmunoDNA Background Blocker	100.0 ml
BSB 0106	ImmunoDNA Background Blocker	200.0 ml
BSB 0107	ImmunoDNA Background Blocker	1000.0 ml
BSB 0050	PolyDetector Peroxidase Block	15.0 ml
BSB 0051	PolyDetector Peroxidase Block	50.0 ml
BSB 0052	PolyDetector Peroxidase Block	100.0 ml
BSB 0053	PolyDetector Peroxidase Block	200.0 ml
BSB 0054	PolyDetector Peroxidase Block	1000.0 ml
BSB 0055	PolyDetector AP Block	15.0 ml
BSB 0056	PolyDetector AP Block	50.0 ml
BSB 0057	PolyDetector AP Block	100.0 ml
BSB 0058	PolyDetector AP Block	200.0 ml
BSB 0059	PolyDetector AP Block	1000.0 ml
BSB 0098	ImmunoDetector Biotin Blocker	15.0 ml
BSB 0099	ImmunoDetector Biotin Blocker	50.0 ml
BSB 0100	ImmunoDetector Biotin Blocker	100.0 ml
BSB 0101	ImmunoDetector Biotin Blocker	200.0 ml
BSB 0102	ImmunoDetector Biotin Blocker	1000.0 ml

CAT. #	PRESENTATION	VOL
Primary Antibody Negative Controls		
BSB 0040A	Mouse Negative Control	3.0 ml
BSB 0040B	Mouse Negative Control	6.0 ml
BSB 0040C	Mouse Negative Control	15.0 ml
BSB 0041A	Rabbit Negative Control	3.0 ml
BSB 0041B	Rabbit Negative Control	6.0 ml
BSB 0041C	Rabbit Negative Control	15.0 ml
Washers and Detergent		
BSB 0029	Immuno/DNA Washer 10X	200.0 ml
BSB 0042	Immuno/DNA Washer 10X	1000.0 ml
BSB 0060	HybriWash 20X	200.0 ml
BSB 0060A	HybriWash 20X	50.0 ml
BSB 0045	Tween 20	100.0 ml
BSB 0046	Tween 20	500.0 ml
Stabilizing Buffers for Enzyme Conjugates		
BSB 0043	PolyDetector HRP Buffer	1000.0 ml
BSB 0044	PolyDetector AP Buffer	1000.0 ml
Mounting Media		
BSB 0090	Aqua Mounter	15.0 ml
BSB 0091	Aqua Mounter	50.0 ml
BSB 0092	Aqua Mounter	100.0 ml
BSB 0093	Aqua Mounter	500.0 ml
BSB 0094	Perma Mounter	15.0 ml
BSB 0095	Perma Mounter	50.0 ml
BSB 0096	Perma Mounter	100.0 ml
BSB 0097	Perma Mounter	500.0 ml
Counterstainers		
BSB 0024	Hematoxylin Counterstainer	15..0 ml
BSB 0025	Hematoxylin Counterstainer	50.0 ml
BSB 0026	Hematoxylin Counterstainer	100.0 ml
BSB 0027	Hematoxylin Counterstainer	200.0 ml
BSB 0028	Hematoxylin Counterstainer	1000.0 ml
BSB 0116	Nuclear Fast Red Counterstainer	15.0 ml
BSB 0117	Nuclear Fast Red Counterstainer	50.0 ml
BSB 0118	Nuclear Fast Red Counterstainer	100.0 ml
BSB 0119	Nuclear Fast Red Counterstainer	200.0 ml
BSB 0120	Nuclear Fast Red Counterstainer	500.0 ml
BSB 0121	Nuclear Fast Red Counterstainer	1000.0 ml
BSB 0122	Methyl Green Counterstainer	15.0 ml
BSB 0123	Methyl Green Counterstainer	50.0 ml
BSB 0124	Methyl Green Counterstainer	100.0 ml
BSB 0125	Methyl Green Counterstainer	200 .0ml
BSB 0126	Methyl Green Counterstainer	500.0 ml
BSB 0127	Methyl Green Counterstainer	1000.0 ml

IVD For *in Vitro* Diagnostic Use

MP1000 CDI's Moist Mark Plus, Slide Marker PK/10

Refer to Anatomical Pathology Catalog for our complete consumable line.

Hydrophilic/Ventana Compatible Slides

EMP00W3	AutoFrost® IHC (Hydrophilic), Clipped Corner, White, CS/3000
EMP00W3-BX	AutoFrost® IHC (Hydrophilic), Clipped Corner, White, BX/100
EM000W3	AutoFrost® IHC (Hydrophilic), 90 Degree/ Square Corner, White, CS/3000
EM000W3-BX	AutoFrost® IHC (Hydrophilic), 90 Degree/ Square Corner, White, BX/100
4951PLUS	SuperFrost® Plus Charged Slides, Manufactured by Erie Scientific

Routine Charged Slides/Hydrophobic (Non Ventana)

AMS90-0	AutoFrost® AMS (Adhesion Microscope Slides), Charged, 90 Degree/Square Corner White, CS/1440
AMS45-0	AutoFrost® AMS (Adhesion Microscope Slides),Charged, Clipped Corner, White, CS/1440

Tissue Capture Pen

For better adherence of tissue sections. Apply tip to slide in one motion. Slide is ready to use. Pen "charges" approximately 3500 slides.

TC0417 Each.

Super Pap Pen

The surface tension provided by the circle drawn with the pen ensures that only the amount of antibody solution needed for sufficient reaction will be applied. Stable up to 129 degrees C in microwave heat.

The Pap Pen is very effective for immunostaining procedures by the Peroxidase-Antiperoxidase (PAP) method, ABC method, B-SA method, immunofluorescence method, ASD method, Enzyme method and Frozen Section method.

Available in Regular and Mini Tip.

Regular Tip

SPR0905 Each
SPR0905-5 PK/5

Mini Tip

SPM0928 Each

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