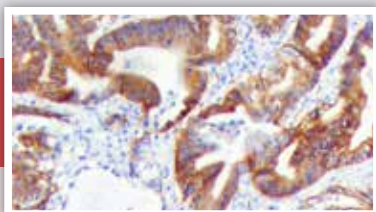


NEW ANTIBODIES AND PRODUCTS FOR MOLECULAR PATHOLOGY

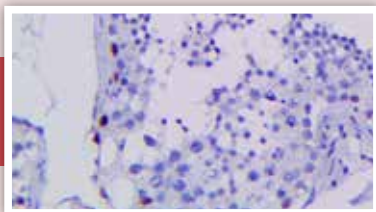


New High Quality Antibody for Automated Staining Systems

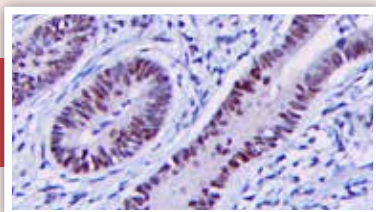
23 New Automation Optimized IHC Antibodies! Including...



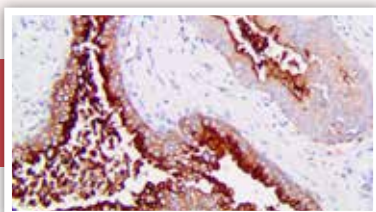
C-Met, RMab



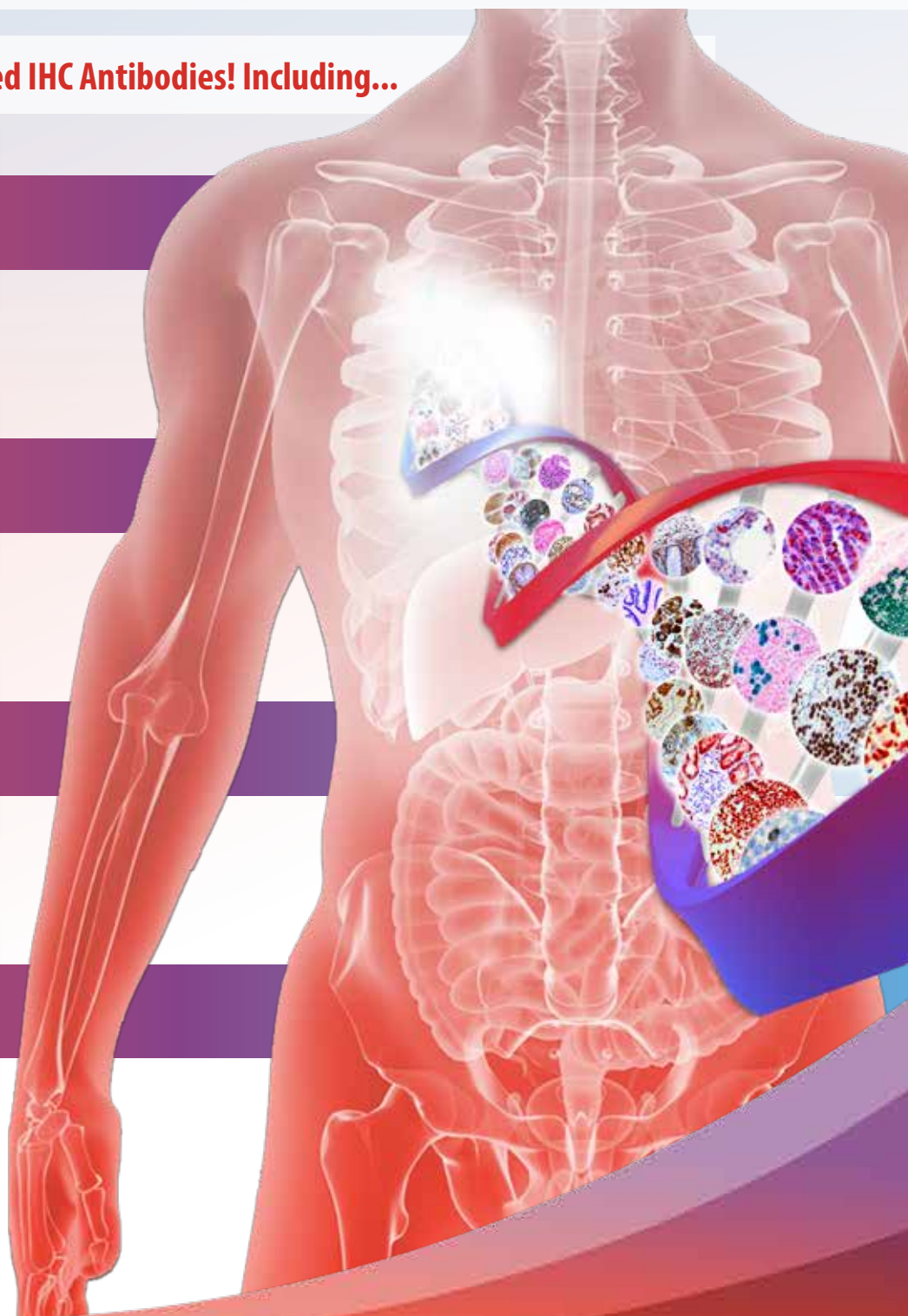
MDM2, RMab



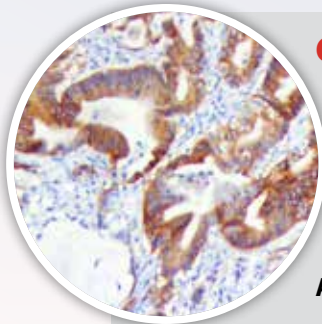
PMS2, RMab



CD10, RMab



Bio SB is proud to announce our new line of antibodies for immunohistochemistry. As well as developing new biomarkers for immunohistochemistry applications, we have developed new clones for currently existing antibodies that are specifically designed for use in automated IHC systems. Along with increased sensitivity and overall clearer picture, our highly concentrated, high quality antibodies have a much higher dilution factor compared to our competitors, allowing you to run more tests per mL of concentrated antibody!



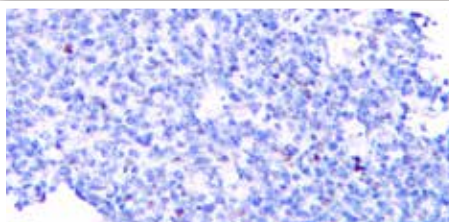
C-Met / HGFR, RMAb (RBT-C-Met/HGFR)

C-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).

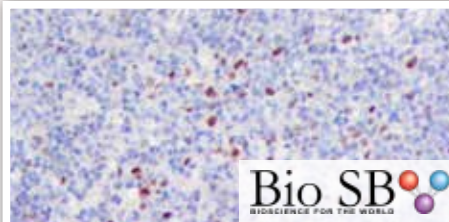
Application: Kidney & Urothelial Cancer, Liver Cancer, Breast Cancer, Neural & Neuroendocrine Cancer, Colon & Gastrointestinal Cancer, Lung Cancer

c-Myc, RMAb (RBT-CMYC)

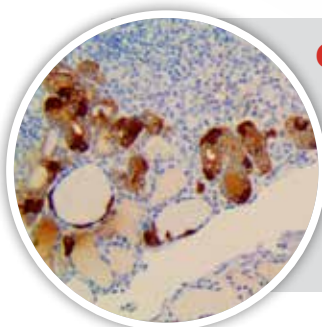
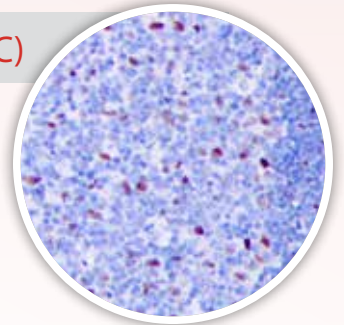
c-Myc (RBT-CMYC) Clone Comparison



c-Myc (EP121) on Tonsil Tissue



c-Myc (RBT-CMYC) on TISSUE Tissue



Calcitonin, RMAb (RBT-Calcitonin)

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.

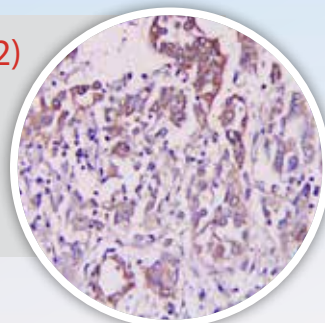
Application: Neural & Neuroendocrine Cancer, Thyroid & Parathyroid Cancer, Head & Neck Cancer, Cytopathology

New Antibodies Optimized for Automated IHC

Calretinin, RMab (RBT-CALB2)

Calretinin antibody 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.

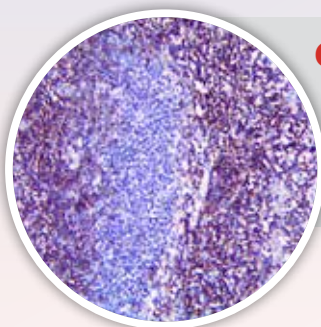
Application: Neural & Neuroendocrine Cancer, Thyroid & Parathyroid Cancer, Head & Neck Cancer, Cytopathology



CD4, MMab (BSB-179)

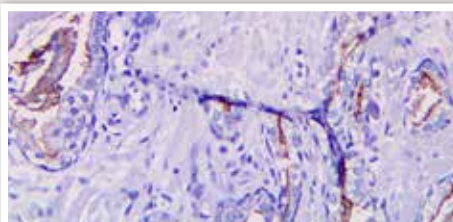
CD4 antigen is involved in the recognition of Type II Major Histocompatibility Complex antigens (MHC-II). CD4 is also the receptor for Human Immunodeficiency Virus (HIV). It is present on most T-helper cells and normal thymocytes.

Application: Melanoma & Skin Cancer, Lymphoma

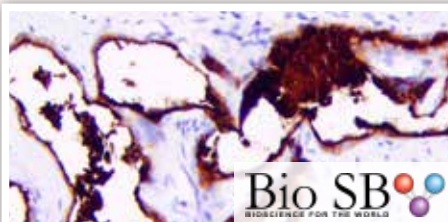


CD10, RMab (RBT-CD10)

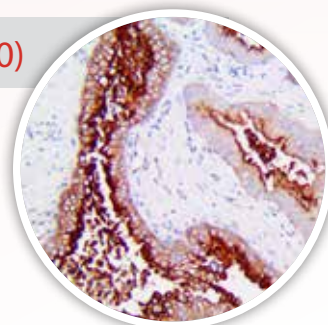
CD10 (RBT-CD10) Clone Comparison



CD10 (EP195) on Prostate Tissue



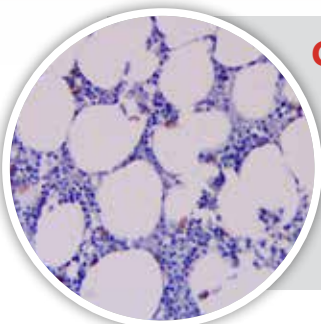
CD10 (RBT-CD10) on Prostate Tissue

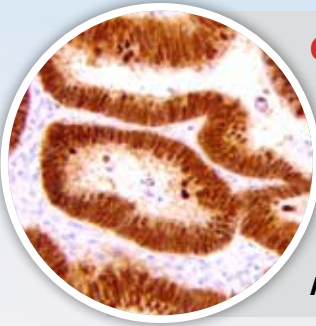


CD138, RMab (RBT-CD138)

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 Lymphoplasmacytoid 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.

Application: Hematopoietic, Lymphoma, Rejection & Autoimmunity





CDX2, RMAb (RBT-CDX2)

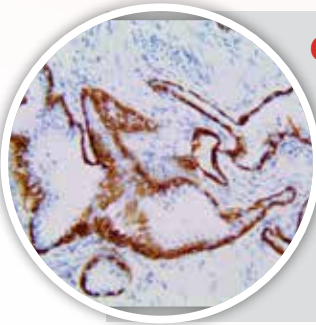
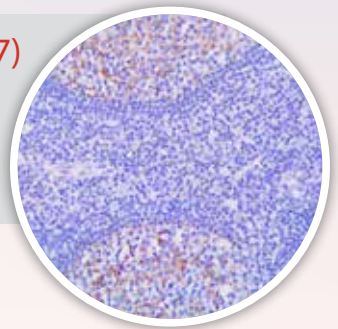
The CDX2 protein is expressed in Primary and Metastatic Colorectal Carcinomas and has also been demonstrated in the intestinal metaplasia of the stomach and intestinal-type gastric cancer. It is not expressed in the normal gastric mucosa. Anti-CDX2 antibody has been useful in distinguishing the gastrointestinal 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.

Application: Colon & GI Cancer

Clusterin / Apolipoprotein J, RMAb (RM437)

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.

Application: Rejection & Autoimmunity



Cytokeratin 5 & 6, RMAb (RM431)

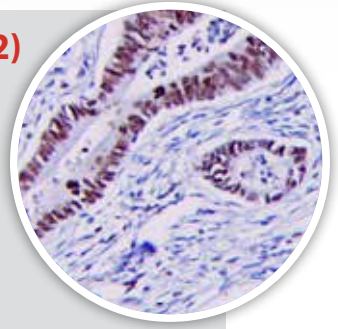
Cytokeratin 5 & 6 antibody is positively seen in nearly 100% of Malignant Mesotheliomas and are rarely seen in Lung Adenocarcinomas. CK 5 and 6 can positively be seen in undifferentiated Large-cell Carcinoma as well as Squamous Carcinoma. Fewer than 10% of Carcinomas of the breast, colon, and prostate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

Application: Mesothelioma, Lung Cancer, Prostate Cancer, Breast Cancer, Melanoma & Skin Cancer

EZH2, RMAb (RBT-EZH2)

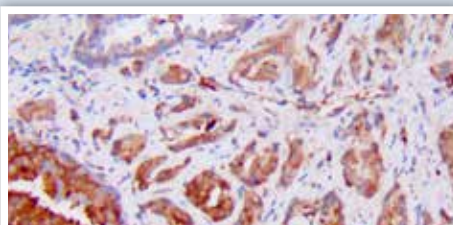
EZH2 may inhibit apoptosis in ectopic Breast Cancer, overexpression is correlated with poor clinical outcome in Prostate and Gastric Cancer. EZH2 overexpression is positively correlated with epithelial-mesenchymal transition, tumor size, lymphatic invasion and TNM stage, and poor disease-free survival and overall survival of patients. EZH2 regulates ADAR1 expression, and EZH2 and BET inhibitors show synergistic inhibition in pancreatic cancer. EZH2 expression is significantly higher in BAP1-mutant renal clear cell carcinoma patients with progressed stage, grade, nodal invasion, and metastasis.

Application: Breast Cancer, Gastric Cancer

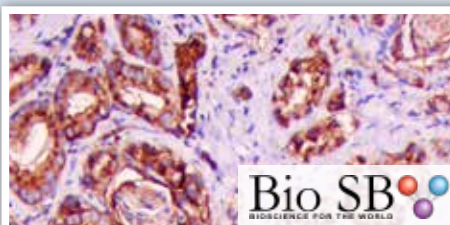


GLUT1, RMAb (RBT-GLUT1)

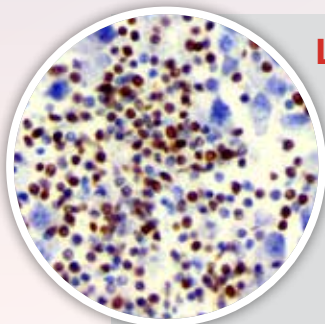
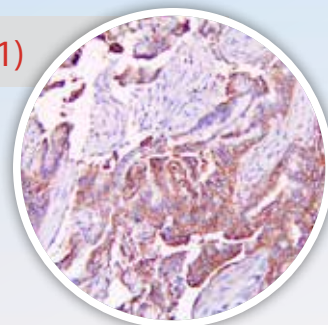
GLUT1 (RBT-GLUT1) Clone Comparison



GLUT1 (EP141) on Prostate Adenocarcinoma Tissue



GLUT1 (RBT-GLUT1) on Prostate Adenocarcinoma Tissue



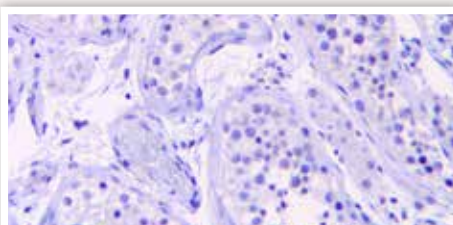
LEF1, RMAb (RBT-LEF1)

LEF1 is highly overexpressed and associated with disease progression and poor prognosis in B-cell chronic lymphocytic leukemia. Strong nuclear expression of LEF1 has been observed in the majority of chronic lymphocytic leukemia/small lymphocytic lymphoma cases and LEF1 is not detected in other small B cell lymphomas. Gene expression profiling revealed overexpression of LEF1 in chronic lymphocytic leukemia (CLL)/small lymphocytic lymphoma (SLL). LEF1 immunostaining has been detected in all neoplastic cells of CLL/SLL cases. LEF1 was identified in 50% of high grade follicular lymphoma and 38% of diffuse large B-cell lymphoma, but not in mantle cell lymphoma or marginal zone lymphoma.

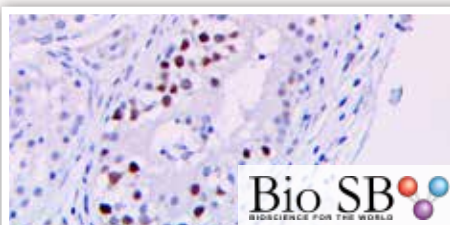
Application: Leukemia & Histiocytic, Lymphoma, Colon & Gastrointestinal Cancer, Brain Cancer

MDM2, RMAb (RBT-MDM2)

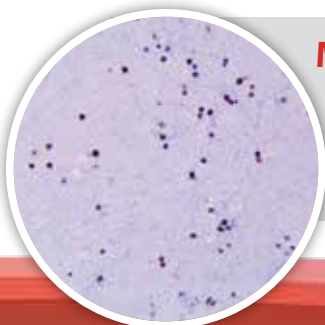
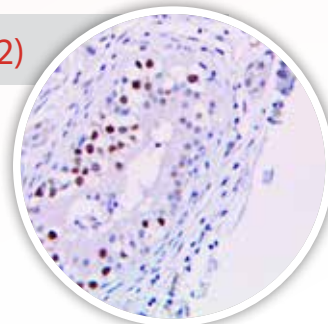
MDM2 (RBT-MDM2) Clone Comparison



MDM2 (BSB-64) on Testis Tissue



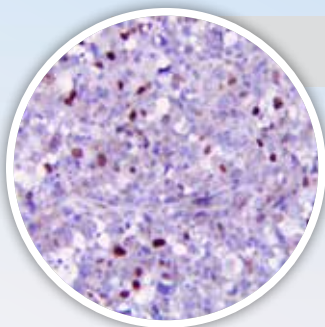
MDM2 (RBT-MDM2) on Testis Tissue



Myeloperoxidase / MPO, MAb (BSB-180)

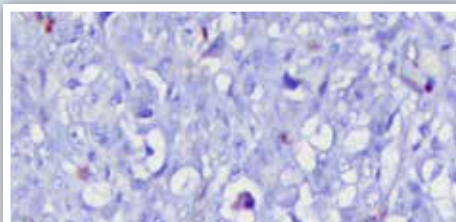
Myeloperoxidase detects granulocytes and monocytes in blood and precursors of granulocytes in the bone marrow. This antibody can detect myeloid cell populations of the bone marrow as well as in other sites.

Application: Leukemia & Histiocytic

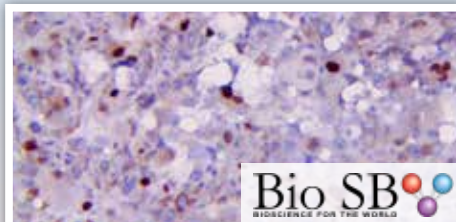


MyoD1, RMAb (RBT-MYOD1)

MyoD1 (RBT-MYOD1) Clone Comparison



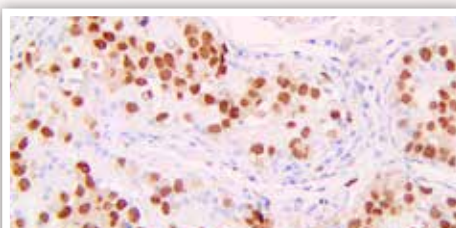
MyoD1 (EP212) on Rhabdomyosarcoma Tissue



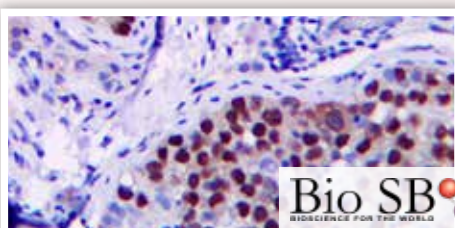
MyoD1 (RBT-MYOD1) on Rhabdomyosarcoma Tissue

OCT4 / POU5F1, RMAb (RBT-PCT4)

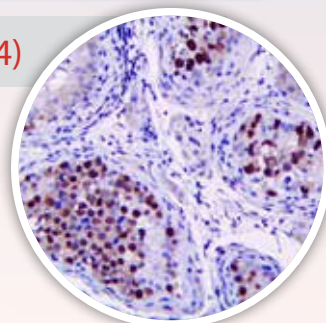
OCT4 (RBT-OCT4) Clone Comparison



OCT4 (EP141) on Testis Tissue



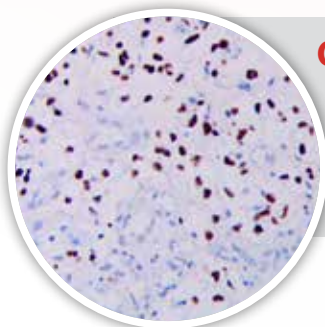
OCT4 (RBT-OCT4) on Testis Tissue



OLIG2, RMAb (RBT-OLIG2)

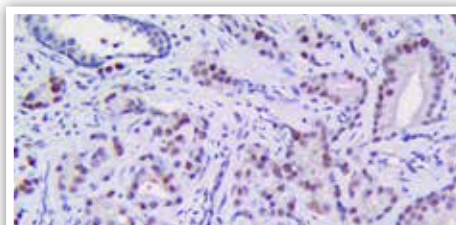
OLIG2 is universally expressed in glioblastoma and other diffuse gliomas (astrocytomas, oligodendrogliomas and oligoastrocytomas), and is a useful positive diagnostic marker of these brain tumors.

Application: Neural and Neuroendocrine Cancer

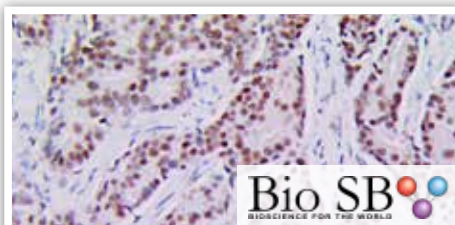


PMS2, RMAb (RBT-PMS2)

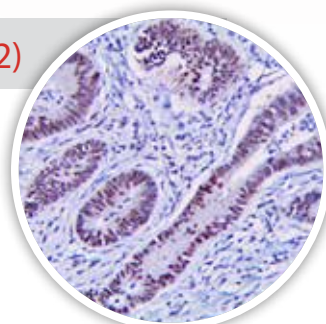
PMS2 (RBT-PMS2) Clone Comparison



PMS2 (EP51) on Prostate Adenocarcinoma



PMS2 (RBT-PMS2) on Prostate Adenocarcinoma

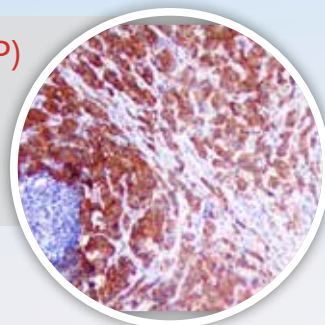


New Antibodies Optimized for Automated IHC

S100P, RMab (RBT-S100P)

S100P antibody 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.

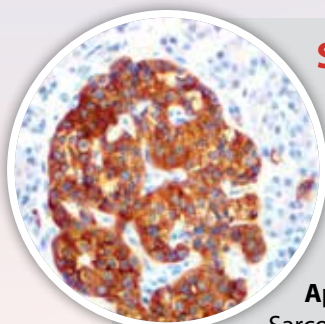
Application: Pancreatic Cancer, Lung Cancer



Synaptophysin, RMab (RBT-Synaptophysin)

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. Synaptophysin is an independent broad-range marker of neural and neuroendocrine differentiation.

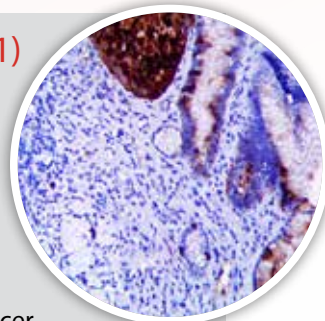
Application: Lung Cancer, Colon & Gastrointestinal Cancer, Gall Bladder & Pancreatic Cancer, Sarcoma & Soft Tissue, Neural & Neuroendocrine Cancer, Thyroid & Parathyroid Cancer, Undifferentiated Tumor, Carcinomas Of Unknown Primary Site



TFF3, MMab (BSB-181)

TFF3 has been identified as an indicator of Barrett's Esophagus, a premalignant condition indicating predisposition to esophageal adenocarcinoma. In cases of acid reflux, TFF3 and p53 can be used to help identify likely cases of dysplasia. Overexpression of TFF3 has been found to promote proliferation and invasion in Cervical Cancer cells, through the regulation of E-Cadherin. Expression of TFF3 has also been found to be decreased in Colorectal Cancer, and may be a prognostic indicator with less TFF3 expression indicating higher pathologic stages of the tumor.

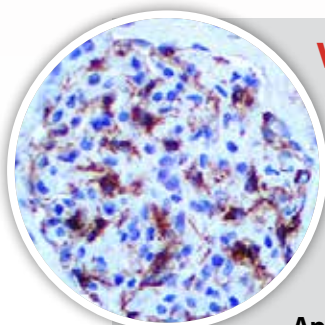
Application: Colon & Gi Cancer, Cervical Cancer



VEGFA, RMab (RBT-VEGFA)

VEGFA has been implicated with poor prognosis in breast cancer. The overexpression of VEGFA may be an early step in the process of metastasis, a step involved in the "angiogenic" switch. Although VEGFA has been correlated with poor survival, its exact mechanism of action in the progression of tumors remains unclear. VEGFA 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, VEGFA may elicit several responses. It may cause a cell to survive, move, or further differentiate.

Application: Angiosarcoma, angioma



Antibody	Clone	Application
c-Met/HGFR	RBT-c-Met/HGFR	Kidney & Urothelial Cancer, Liver Cancer, Breast Cancer, Neural & Neuroendocrine Cancer, Colon & Gastrointestinal Cancer, Lung Cancer
c-Myc	RBT-CMYC	Leukemia & Histiocytic, Lymphoma, Prostate Cancer
Calcitonin	RBT-Calcitonin	Neural & Neuroendocrine Cancer, Thyroid & Parathyroid Cancer, Head & Neck Cancer, Cytopathology
Calretinin	RBT-CALB2	Neural & Neuroendocrine Cancer, Thyroid & Parathyroid Cancer, Head & Neck Cancer, Cytopathology
CD10	RBT-CD10	Hodgkin's & Non-Hodgkin Lymphoma, Lymphoma, Kidney & Urothelial Cancer, Liver Cancer, Gall Bladder & Pancreatic Cancer, Endometrial & Genital Cancer, Breast Cancer
CD138	RBT-CD138	Hematopoietic, Lymphoma, Rejection & Autoimmunity
CD4	BSB-179	Melanoma & Skin Cancer, Lymphoma
CDX2	RBT-CDX2	Colon & GI Cancer
Clusterin/Apolipoprotein J	RM437	Rejection & Autoimmunity
Cytokeratin 5 & 6	RM341	Mesothelioma, Lung Cancer, Prostate Cancer, Breast Cancer, Melanoma & Skin Cancer
EZH2	RBT-EZH2	Breast Cancer, Gastric Cancer
GLUT1	RBT-GLUT1	Colon & GI Cancer, Breast Cancer, Mesothelioma
LEF1	RBT-LEF1	Leukemia & Histiocytic, Lymphoma, Colon & Gastrointestinal Cancer, Brain Cancer
MDM2	RBT-MDM2	Sarcoma, Testicular Cancer
Myeloperoxidase/MPO	BSB-180	Leukemia & Histiocytic
MyoD1	RBT-MYOD1	Rhabdomyosarcoma
OCT4/POU5F1	RBT-OCT4	Ovarian Cancer, Testicular Cancer, Germ Cell Tumor
OLIG2	RBT-OLIG2	Neural and Neuroendocrine Cancer
PMS2	RBT-PMS2	Colon & GI Cancer
S100P	RBT-S100P	Pancreatic Cancer, Lung Cancer
Synaptophysin	RBT-Synaptophysin	Lung Cancer, Colon & Gastrointestinal Cancer, Gall Bladder & Pancreatic Cancer, Sarcoma & Soft Tissue, Neural & Neuroendocrine Cancer, Thyroid & Parathyroid Cancer
TFF3	BSB-181	Colon & GI Cancer, Cervical Cancer
VEGFA	RBT-VEGFA	Angiosarcoma, Angioma

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BIO SB manufactures and develops products in accordance with FDA QSR 21 CFR Part 820 cGMP, CE/IVD and ISO 13485:2016 standards. These guidelines enable us to produce an IVD product that meets the highest in vitro diagnostic standards.

Bio SB Inc.

5385 Hollister Ave., Building 8, #108, Santa Barbara, CA 93111, USA
Tel (USA): 1-800-561-1145 | Tel (Int): +1-805-692-2768 | Fax: 805-692-2769
E-mail: sales@biosb.com | Website: www.biosb.com