

# NEW ANTIBODIES AND PRODUCTS FOR MOLECULAR PATHOLOGY

New Products for Use in Immunohistochemistry

## 66 New IHC Antibodies! Including...



## 5 New TintoFast Antibodies! Including...



## 3 New IHC Detection Systems!

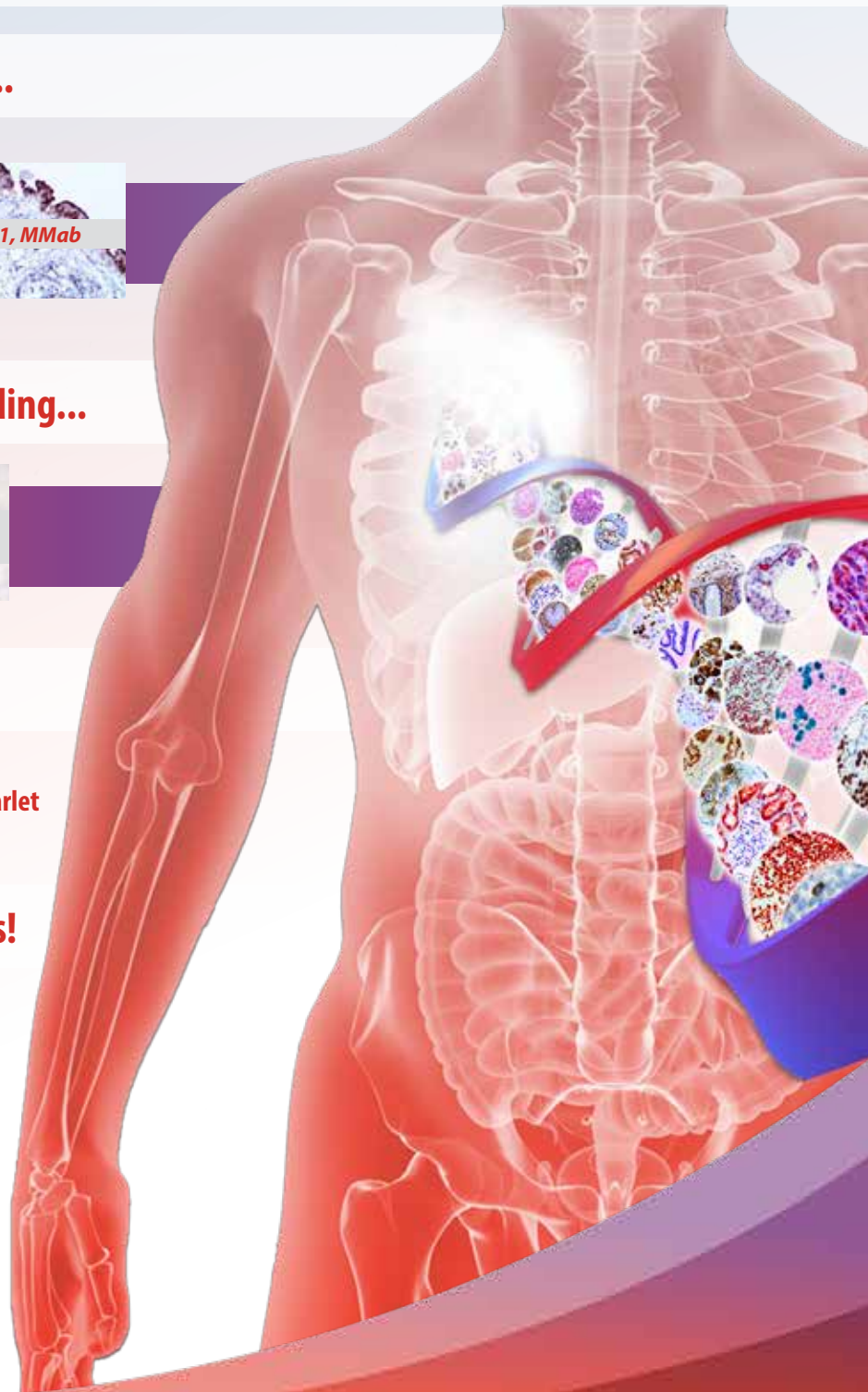
- Mouse / Rabbit AmpliDetector Plus FITC
- Mouse / Rabbit ImmunoDetector AP with ALK Scarlet
- Mouse / Rabbit PolyDetector AP with ALK Scarlet

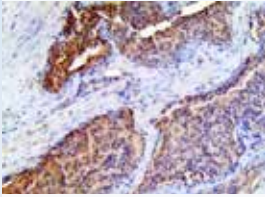
## 3 New Multiplex IHC Detection Kits!

- HPV MultiDetector HRP / AP Kit
- PIN MultiDetector HRP / AP Kit
- PNI Carcinoma MultiDetector HRP / AP Kit

## 6 New TMA & CLMA's!

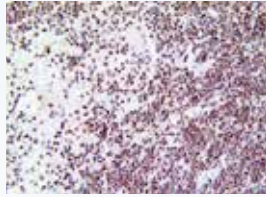
...and More!





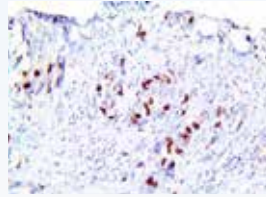
**Annexin VII (EP367),  
RMab**

Annexin VII is associated with several types of cancers, such as Prostate, Breast, Liver, and Gastric cancer.



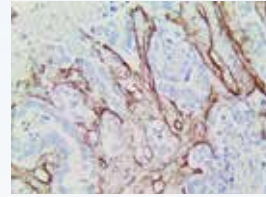
**ATM (EP327), RMab**

Associated with an increased risk of several cancer types, which include Leukemias, Lymphoma & Colorectal Cancer.



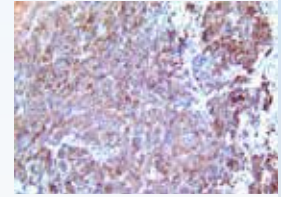
**Aurora B (RM278),  
RMab**

Abnormal expression has been found in NSCLC, Mesothelioma, Glioblastoma, Oral Cancer and Hepatocellular Carcinoma.



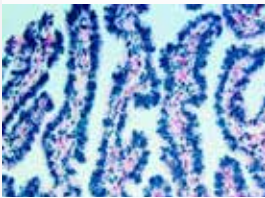
**Collagen IV (RBT-  
COL4A1), RMab**

Useful in the classification of soft tissue tumors like Schwannomas, Leiomyomas.



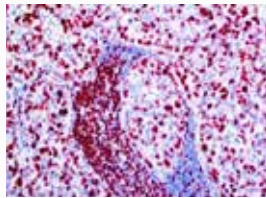
**CXCL12 / SDF-1 (BSB-  
165), MAb**

Expression in Breast, Pancreatic, Esophageal, Lung, Prostate, and Ovarian Cancers increases angiogenesis.



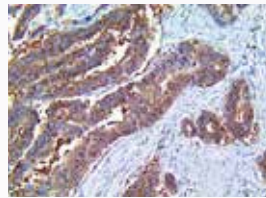
**Estrogen Receptor  
(RM292), RMab**

ER adds additional predictive information to response to hormonal therapy in Breast Cancer.



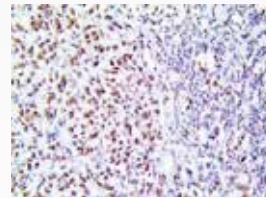
**Ki-67 (RM360), RMab**

An excellent marker to determine the growth fraction of a given cell population.



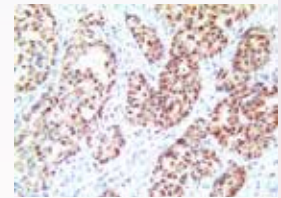
**Laminin-R / RPSA  
(BSB-144), RMab**

Found to be overexpressed in Breast, Colorectal, Pancreatic, Prostate, and Cervical Cancer, and in Lymphomas.



**PELP1 (RBT-PELP1),  
RMab**

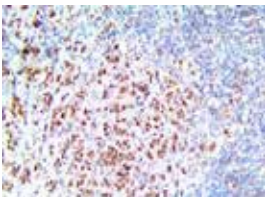
Associated with poor outcome in Breast non-luminal cancers and modified the prognostic effects of AR.



**TDP-43 / TARDBP  
(BSB-166), MAb**

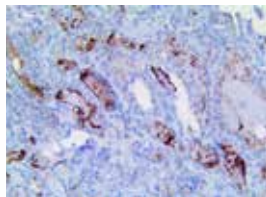
Found to promote Triple Negative Breast Cancer (TNBC) progression.

## New Antibodies for Lung Cancer Applications



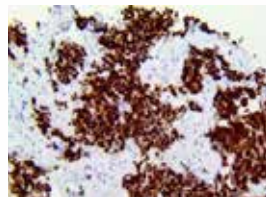
**BRG-1 / SMARCA4  
(BSB-154), MAb**

Expression loss associated with cancers types, including Breast, Colon, Head/Neck, Ovarian, Liver and Renal Cell Cancer.



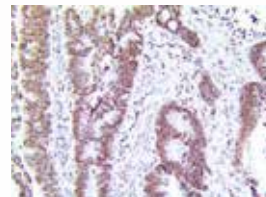
**CD73 / NT5E (RM431),  
RMab**

Overexpression associated with Bladder, Brain, Breast, Esophageal, Gastric, Pancreatic, Rectal mucinous & Renal Cell Cancers.



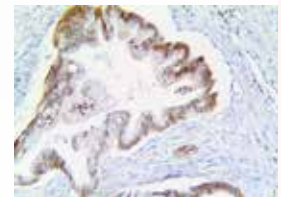
**INSM1 (RBT-INSM1),  
RMab**

Found in NE tumors, such as Small Cell Lung Cancer (SCLC), Pituitary Tumors, Medullary Thyroid Carcinoma and Merkel Cell Carcinoma.



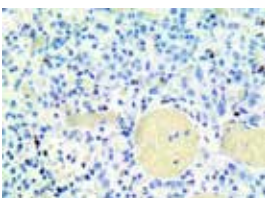
**Lamin-B1 (RBT-  
LMNB1), RMab**

Lamin-B1 levels are reduced in Lung Cancer patients compared to normal Lung tissue and is associated with higher tumor grade.



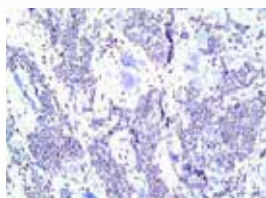
**Musashi 2 (RM422),  
RMab**

Indicates the presence of stem cells in tumors of Colorectal, Lung, and Pancreatic Cancers, Glioblastoma, Leukemias, and Xenografts.



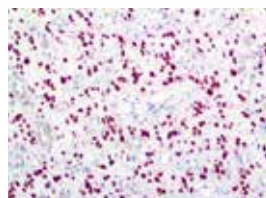
**pan-TRK (RM423),  
RMab**

NTRK gene fusions are found in Brain primary tumors and metastases, Lung, Breast, Papillary Thyroid Carcinoma, Colorectal and Pancreatic cancer.



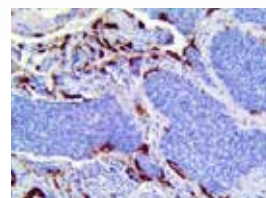
**Pygopus 2 / Pygo 2  
(BSB-156), MAb**

Associated with poor differentiation, high tumor, node, and metastases stage and poor prognosis in Non-Small Cell Lung Cancer (NSCLC).



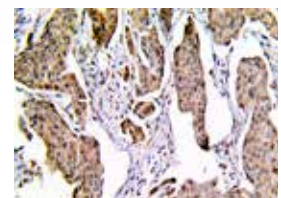
**SOX-2 (RM427), RMab**

Observed in Teratoma of the CNS, Melanoma, Testicular Germ Cell Tumor, Cervical Carcinoma, Lung Cancer, Breast Cancer and GI SSC.



**Surfactant Protein  
D / SP-D (BSB-162),  
MAb**

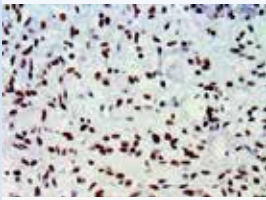
Low expression of Surfactant protein D (SP-D) antibody found in Lung, Gastric, and Breast cancers.



**YAP1 (BSB-146),  
MAb**

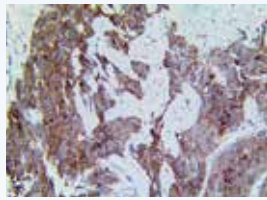
Overexpressed in Mammary Carcinoma, Glioblastoma and Squamous Cell Carcinoma, Pancreatic, Oral, Cervical, Ovarian and Lung Cancers.

# New Antibodies for Neural Cancer Applications



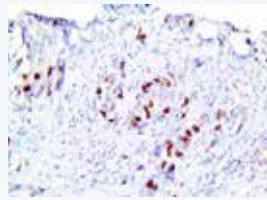
**ATRX (RBT-ATRX),  
RMab**

Mutation/loss has been described in Anaplastic Gliomas.



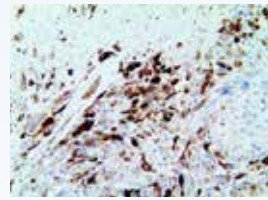
**CXCR4 / CD184 / Fusin  
(EP394), RMab**

Promotes angiogenesis in tumors and responds to CXCL12 expression to promote metastasis in cancer of the Bone, Brain, Breast, Lung, Liver, Kidney and other tissues.



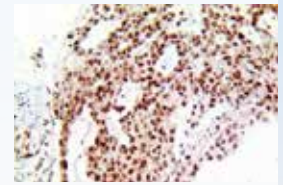
**GAB1 (BSB-155),  
MMab**

Overexpression has been seen in Adult Acute Lymphoblastic Leukemia, Medulloblastomas, Breast, Colorectal Cancer, Hepatocellular Carcinoma and Epithelial Ovarian Cancer.



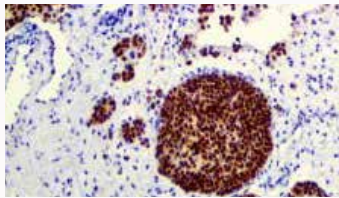
**IDH1 R132H (RBT-  
RBT-IDH1), RMab**

Screening for IDH1 R132H mutation can provide valuable information on diagnosis and prognosis of Glioma.



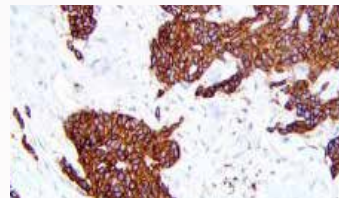
**MGMT / AGAT (EP337),  
RMab**

High expression reported in Glioma, Myeloma, Melanoma, Colon and Pancreatic Cancers.



**NeuN (RBT-NeuN), RMab**

Considered a marker of neuronal differentiation in Brain Tumors and is useful in grading Epithelial Neuroendocrine Carcinomas (ENEC).

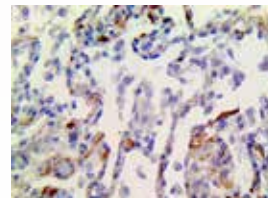


**Somatostatin Receptor 2  
(EP149), RMab**

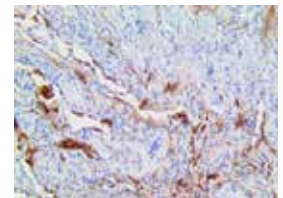
Expressed in Neuroblastomas, Parangangliomas and Meningiomas.

# New Antibodies for SARS-CoV-2 & Cytokine Storm Syndrome Applications

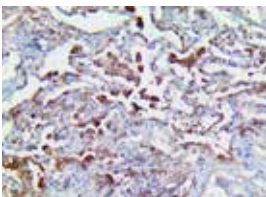
Bio SB has developed and manufactured the CoV-2 recombinant proteins and peptides needed to generate antibodies to identify the virus, receptors and ILs by Immunohistochemistry and Immunofluorescence on FFPE biopsies. Additionally, Bio SB has developed antibodies to identify the ACE-2 and TMPRSS2 receptors and has a large amount of CD (B and T Lymphocytes, NK Cells, Monocytes, Macrophages), and other markers for immune response factors (IL-1a, IL1b, IL-6, TNFa, INF-a and IFN-y) and vascular cells such as Factor H and CD142 / TF, with the intention to assess the pathological damaged caused by the COVID-19 infection using single and multiplex Immunohistochemistry and Immunofluorescence on FFPE COVID-19 positive biopsies.



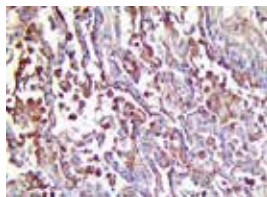
**SARS-CoV-2 (BSB-  
134), MMab**



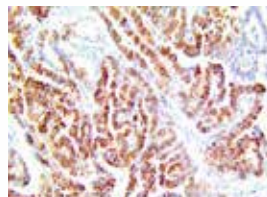
**CD142 / TF (BSB-143),  
MMab**



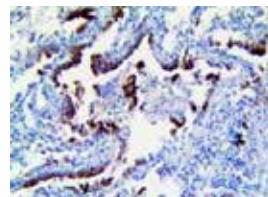
**CD147 (BSB-137),  
MMab**



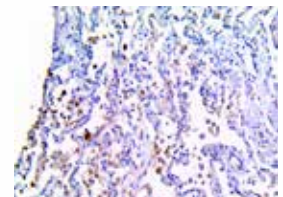
**Factor H (BSB-164),  
MMab**



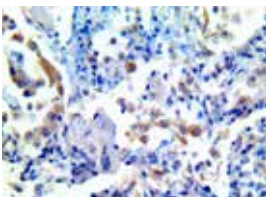
**IFN-a (BSB-158),  
MMab**



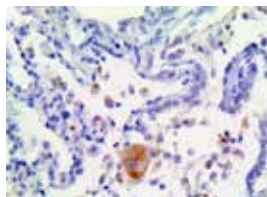
**IFN-y (BSB-161),  
MMab**



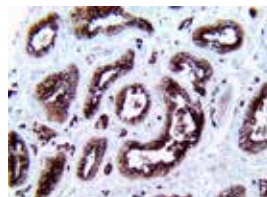
**IL-1a (BSB-138),  
MMab**



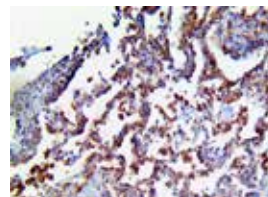
**IL-1b (BSB-139),  
MMab**



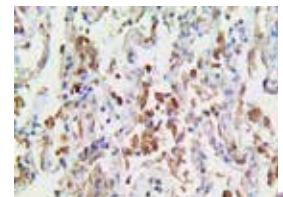
**IL-6 (BSB-140), MMab**



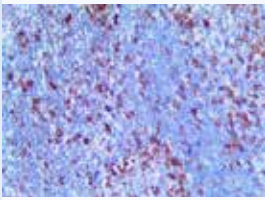
**ACE2 (BSB-155),  
MMab**



**TMPRSS2 (BSB-136),  
MMab**

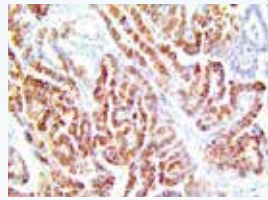


**TNFa-IP2 (BSB-141),  
MMab**



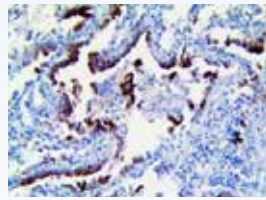
**ICOS / CD278 (RM417),  
RMab**

A sensitive marker for identifying T cell Lymphomas of Follicular Helper T cell origin.



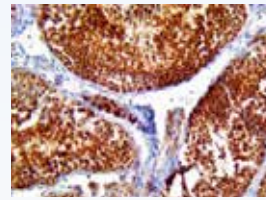
**IFN-a (BSB-158),  
MMab**

Produced mainly by plasmacytoid dendritic cells and involved in innate immunity against viral infections.



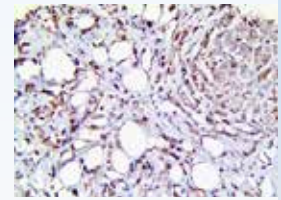
**IFN-gamma (BSB-161),  
MMab**

Potential in immunotherapy to improve survival in Bladder Carcinoma, Melanoma, and Ovarian Carcinoma.



**TIGIT (BSB-152),  
MMab**

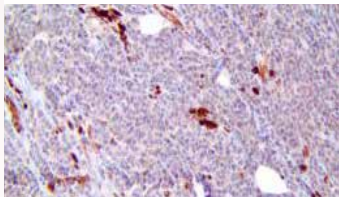
Expressed on regulatory T cells (Tregs) and on activated CD4+ T, CD8+ T, and NK cells.



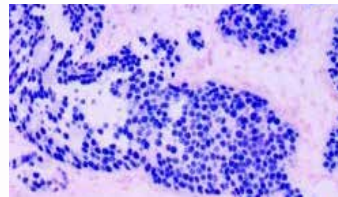
**TIM-3 / HAVCR2 /  
CD366 (BSB-163),  
MMab**

Correlated with AML progression.

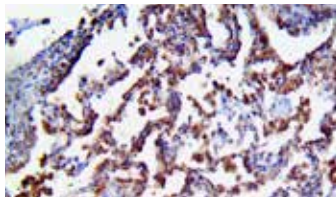
**New Antibodies for Prostate  
Cancer Applications**



**Caspase-3 (RM250), RMAb**  
Expression is associated with Acute Myelogenous Leukemia.

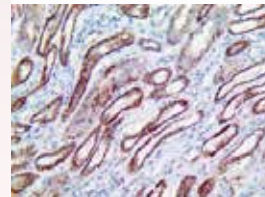


**NKX3.1 (RM430), RMAb**  
Established as a marker for identifying metastatic Prostate Tumors.

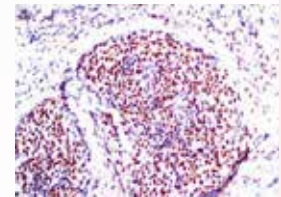


**TMPRSS2 (BSB-136), MAb**  
The TMPRSS2 - ERG fusion pair is a common somatic gene arrangement occurring in about 50% of primary Prostate Cancers.

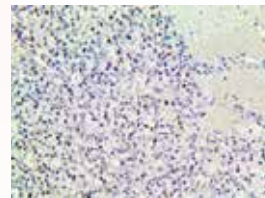
**New Antibodies for Sarcoma &  
Soft Tissue Cancer Applications**



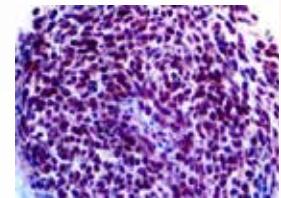
**Fumarate Hydratase (BSB-151), MAb**  
For diagnosis of Hereditary Leiomyomatosis and RCC.



**INI-1 (RBT-INI1), RMAb**  
Mutated or deleted in Malignant Rhabdoid Tumor (MRT).

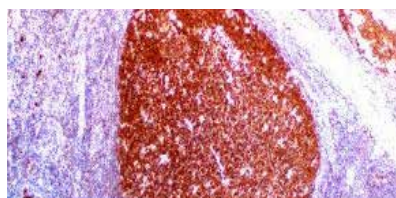


**PAX-7 (BSB-145), MAb**  
Expressed in Ewing Sarcoma, Rhabdomyosarcoma and Synovial Sarcoma.

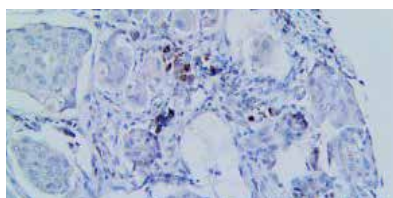


**TLE1 (BSB-142), MAb**  
Used to differentiate Synovial Sarcoma from other Sarcomas.

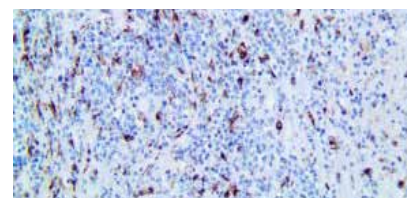
**New Antibodies for Hodgkin's & NHD Lymphoma Applications**



**BOB-1 (RBT-BOB1), RMAb**  
Expression found in Follicular Center Lymphomas, Diffuse Large B-cell Lymphomas, and Burkitt Lymphomas.

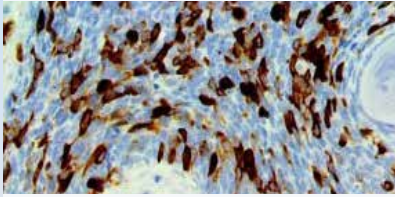


**CD137 / TNFRSF9 (BSB-159), MAb**  
Positive IHC staining seen in a majority of Classical Hodgkin Lymphoma (CHL) tissues.



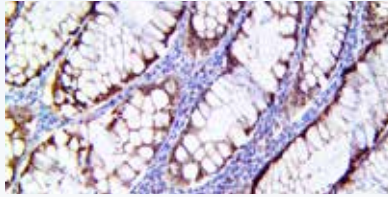
**TIA-1 (RBT-TIA1), RMAb**  
Expression seen in Anaplastic Large Cell Lymphomas, NK-cell Lymphomas, Peripheral T-cell Lymphomas, T-cell Lymphocytosis, B-cell Lymphomas and Hodgkin's Lymphoma, etc.

## New Antibodies for Cervical Cancer Applications



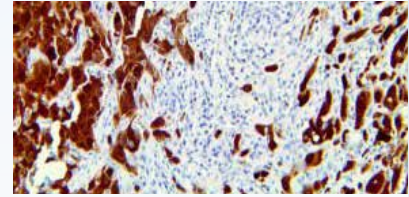
### **Cyclin B1 (RM281), RAb**

Cyclin B1 antibody overexpression has been detected in various tumor types.



### **HSP70 (RM432), RAb**

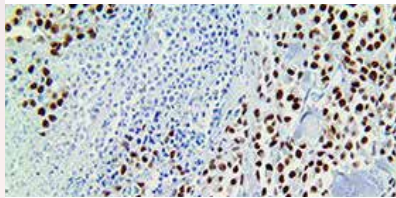
HSP70 is more related with invasive Squamous Cell Carcinoma than Cervical Intraepithelial Neoplasia.



### **p16 (RM267), RAb**

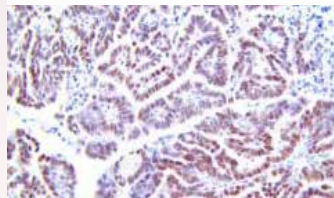
A tumor suppressor gene, important in regulating the cell cycle by binding and deactivating various cyclin-CDK complexes.

## New Antibodies for Melanoma & Skin Cancer Applications



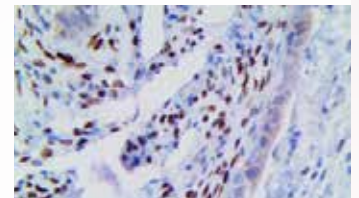
### **PRAME (RBT-PRAME), RAb**

Expression is well documented in Cutaneous and Ocular Melanomas.



### **ARID1A (EP303), RAb**

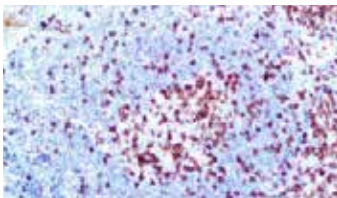
Loss of expression occurs in the development of the majority of Ovarian Clear Cell and Endometrioid Carcinomas and mutations are present at a high frequency in advanced endocrine-resistant ER+ Breast Cancer and it is a valuable prognostic marker in Gastric Cancer.



### **FOXL2 (Polyclonal), RPAb**

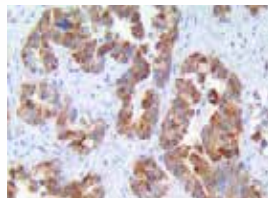
A sensitive and highly specific marker for Sex Cord-Stromal Tumors (SCST) found in Adult Granulosa Cell Tumor and present in most Ovarian Adult Granulosa Cell Tumors but not in Ovarian Fibromas. FOXL2 is expressed in Breast Cancer and influences clinical outcome with improved recurrence-free survival in cases with nuclear expression.

## New Antibodies for Lymphoma Applications



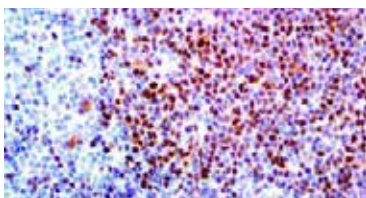
### **CD5 (RM314), RAb**

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 (BSLL), and Mantle Cell Lymphomas.



### **CXCR5 / CD185 (Polyclonal), RPAb**

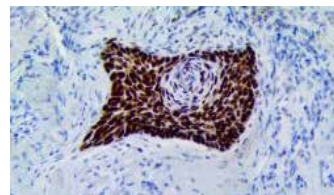
Expressed in mature B-cells and Burkitt's Lymphoma and in NSCLC correlates with stage/grade of the disease.



### **SOX-11 (BSB-167), MMAb**

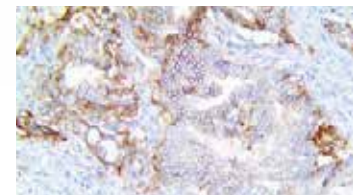
Nuclear expression is highly associated with both Cyclin D1- positive and negative Mantle Cell Lymphomas.

## New Antibodies for Thyroid and Parathyroid Cancer Applications



### **HMGA2 (EP398), RAb**

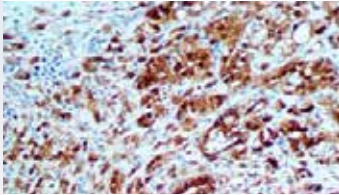
Expressed in most conventional and intramuscular Lipomas and can aid in differentiating between Lipomas from dedifferentiated Liposarcomas.



### **Trop-2 (BSB-148), MMAb**

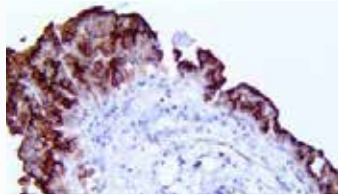
The majority of Papillary Thyroid Carcinoma (PTC) are positive for Trop-2 with high expression correlated with poor prognosis in Pancreatic Carcinoma, Hilar Colangiocarcinoma, Cervical Cancer, Gastric Cancer and others.

## New Antibodies for Mesothelioma Applications



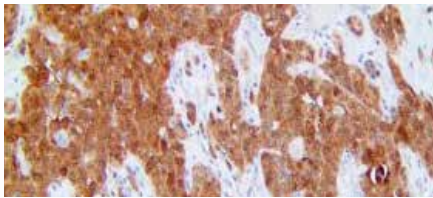
### **Calretinin (RM324), RMAb**

Expressed in the central and peripheral nervous system, stains Mesothelioma and can be used to help differentiate lung tumors.



### **HEG1 (SKM9-2), MMAB**

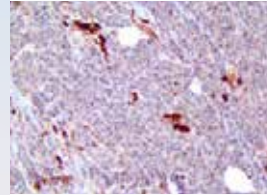
A highly specific and sensitive marker of epithelioid Malignant Mesothelioma and comparable to conventional markers for Epithelioid Mesotheliomas.



### **MTAP (RBT-MTAP), RMAb**

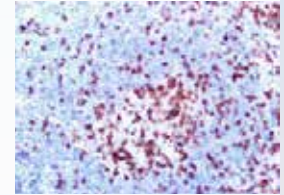
Combination of MTAP or BAP1 loss likely detects Malignant Pleural Mesothelioma (MPM).

## New Antibodies for Leukemia & Histiocytic Cancer Applications



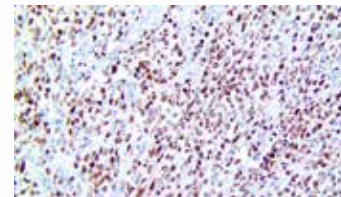
### **Caspase-3 (RM250), RMAb**

Abnormal expression has been directly associated with acute Myelogenous Leukemias.



### **CD5 (RM314), RMAb**

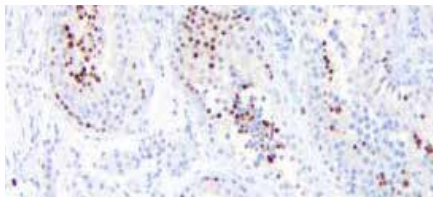
A T-cell marker that also reacts with a range of neoplastic B-cells, e.g., B-cell Chronic Lymphocytic Leukemia (B-CLL), B-cell Small Lymphocytic Lymphoma (BSLL), and Mantle Cell Lymphoma.



### **MND4 (BSB-157), MMAB**

Shown to be downregulated in Myelodysplastic Syndrome, a precursor for Leukemia.

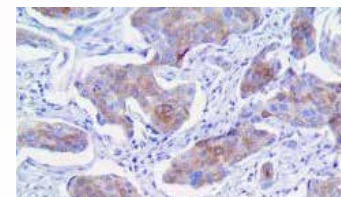
## New Antibodies for Head and Neck Cancer Applications



### **NUT / NUTM1 (Polyclonal), RPAb**

NUT cancers can be Carcinomas, Sarcomas, Lymphomas, and other types of tumors, and are often formed in the head, neck, or mediastinum.

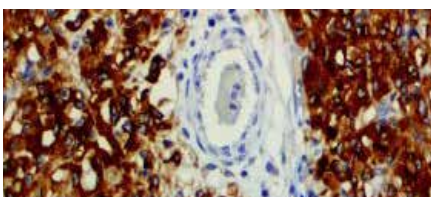
## New Antibodies for Kidney & Urothelial Cancer Applications



### **FGFR-3 (BSB-150), MMAB**

In addition to high prevalence in Bladder Cancer, somatic mutations in the FGFR3 gene have been associated with Multiple Myeloma and Cervical Cancer.

## New Antibodies for GIST Applications

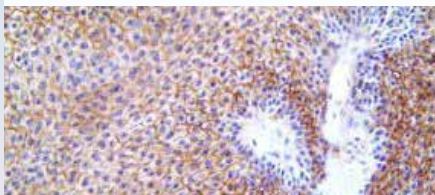


### **CD117 (RM359), RMAb**

CD117 is particularly useful in differentiating Gastrointestinal Stromal Tumors (GIST) from Kaposi's Sarcoma and tumors of smooth-muscle origin.

# New Antibodies by Applications

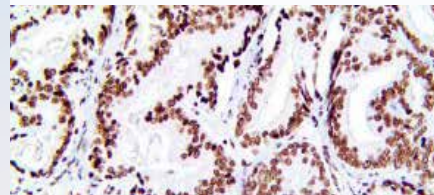
## New Antibodies for Colon & GI Cancer Applications



### **Claudin-7 (EP399), RMAb**

Downregulation was found in Esophageal, Head/Neck, and Prostate Cancers, overexpression of Claudin-7 is found in many Ovarian Cancers and may also lead to increased tumor invasiveness.

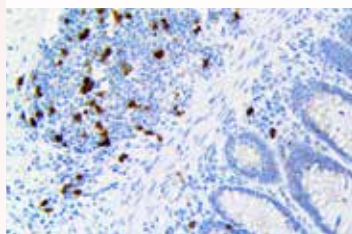
## New Antibodies for Germ Cell Cancer Applications



### **SF-1 / Steroidogenic Factor 1 (BSB-149), MAb**

A valuable IHC marker to determine the Adrenocortical origin of an adrenal mass and is of prognostic value in patients with Adrenocortical Carcinoma

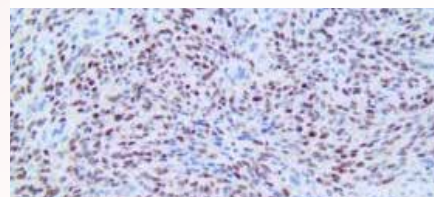
## New Antibodies for Gall Bladder & Pancreatic Cancer Applications



### **Thymidylate Synthase / TS (BSB-160), MAb**

Thymidylate Synthase (TS) IHC is useful for the prognosis and prediction of NSCLC, Colorectal and Gastric Cancer.

## New Antibodies for Infectious Disease Applications

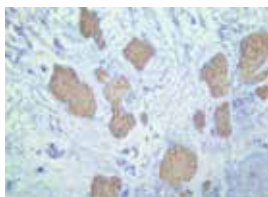


### **HHV-8 (RBT-HHV8), RMAb**

Associated with Kaposi's Sarcoma (KS), Primary Effusion Lymphoma, and Multicentric Castlemann's disease.

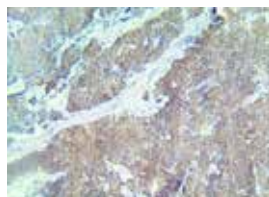
## New Fast Mohs Prediluted Antibodies

Bio SB has developed a highly sensitive non-biotin monovalent Fab micropolymer IHC detection system for the detection of IVD antibodies for Melanoma, BCC, SCC and other Mohs surgery related conditions. Our innovative IHC detection systems and high affinity monoclonal antibodies, have opened the doors for a faster and accurate immunohistochemistry applicable to Mohs surgery.



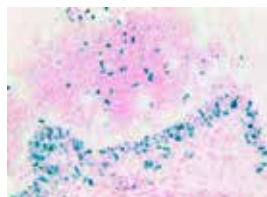
### **TintoFast Adipophilin (BSB-91), MAb**

Expression seen in various Sebaceous lesions and other Cutaneous Tumors.



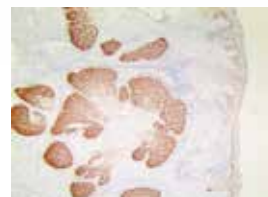
### **TintoFast Chromogranin A (LK2H10), MAb**

An excellent marker for Carcinoid Tumors, Pheochromocytomas, Paragangliomas, and other Neuroendocrine Tumors.



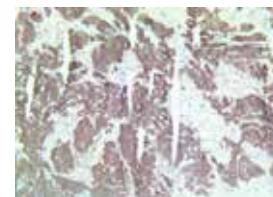
### **TintoFast Ki-67 (RM360), RMAb**

An excellent marker to determine the growth fraction of a given cell population.



### **TintoFast PRAME (RBT-PRAME), RMAb**

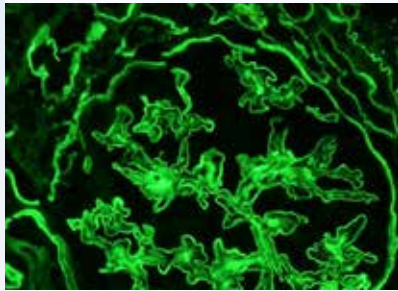
Useful for diagnostic purposes to support a suspected diagnosis of Melanoma.



### **TintoFast Synaptophysin (Polyclonal), RPAb**

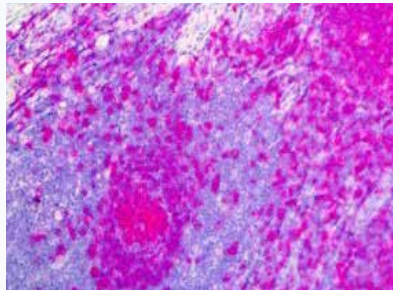
Identifies normal Neuroendocrine cells and Neuroendocrine neoplasms.

## New IHC Detection Kits



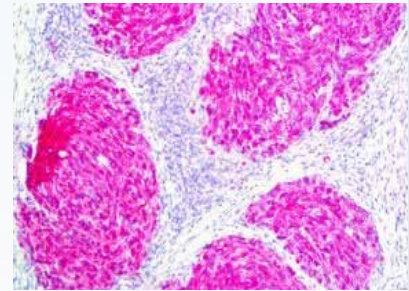
### Mouse / Rabbit AmpliDetector Plus FITC

The AmpliDetector Plus FITC system has been developed using signal amplification technology to greatly increase the amount of FITC signals.



### Mouse / Rabbit ImmunoDetector AP with ALK Scarlet

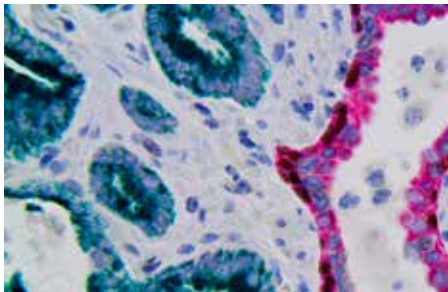
The increased sensitivity of ImmunoDetector AP ALK Scarlet Detection System allows for rapid staining procedures without compromises in the quality of stains.



### Mouse / Rabbit PolyDetector AP with ALK Scarlet

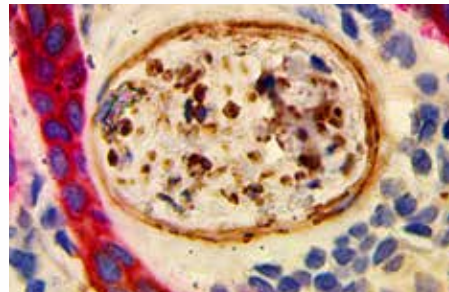
The PolyDetector AP ALK Scarlet Immunohistochemistry (IHC) detection system from Bio SB, is a one-step polymeric, non-Biotin, Fab micropolymer detection system.

## New Complete Multiplex Detection Systems



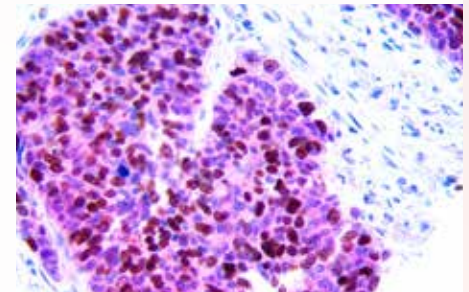
### Prostate Intraepithelial Neoplasia (PIN) MultiDetector HRP/AP Kit (CK34BE12, p63 & AMACR)

A triple stain designed to detect prostate cancer in situ in the prostate glands.



### PNI Carcinoma MultiDetector HRP/AP Kit (CK 5/6 & NGFR)

A dual stain that allows for the simultaneous visualization of skin carcinomas and nerve tissue.



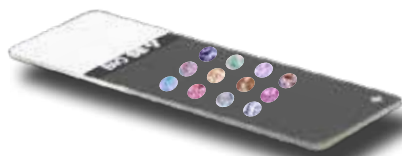
### HPV MultiDetector HRP/AP Kit (p16 & Ki-67)

A dual stain includes a cocktail of Ki-67 and p16 antibodies, which provides a sensitive and specific Multiplex test for HPV related cancers.

## New Tissue & Cell Line Microarrays

### Tissue Microarrays

Product Description	Volume	Catalog #
2-tissue Human PIN TMA	5 Slides	BSB-0333-CS



### Cell Line Microarrays

Product Description	Volume	Catalog #
3-core Androgen Receptor Cell Line Microarray	5 Slides	BSB-0334-CS
3-core ROS1 Cell Line Microarray	5 Slides	BSB-0335-CS
3-core IDH1 R132H Cell Line Microarray	5 Slides	BSB-0336-CS
4-core MMR Cell Line Microarray	5 Slides	BSB-0337-CS

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