ZELA Corporation

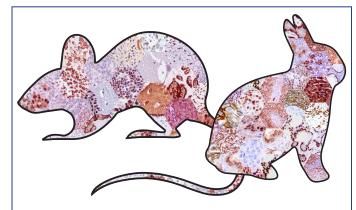
Target-Validated and Characterized (€/IVD Antibodies for Anatomic Pathology

NEW PRODUCTS - April 2022

RAbMono™ (Rabbit Monoclonal) and MonoMAb™ (Mouse Monoclonals) Markers

Zeta Corporation designs and develops tumor-specific biomarkers using cutting edge technology to uniquely select the immunogens for our famed RAbMonoTM (Rabbit Monoclonal) and MonoMabTM (Monospecific monoclonal antibodies). Zeta's RAbMonoTM and MonoMabTM Antibodies are produced through the hybridoma and recombinant technologies.

Zeta offers over 375 individual primary antibodies of high-quality, FDA registered, IVD certified for Pathology/IHC. These antibodies are carefully chosen and developed to consistently produce staining on formalin-fixed paraffin-embedded tissue (FFPE) sections. Our antibodies are carefully screened and rigorously tested to provide unparalleled consistency and reliability in immunohistochemical staining. Every antibody developed in-house goes through Design and Development processes as required by ISO 13485. These antibodies are tested and validated by leading laboratories globally and external quality control institutions like the NordicQC.



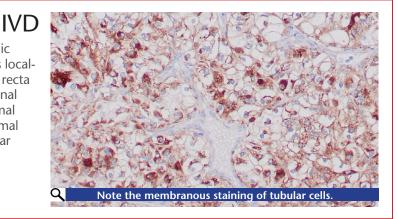
Note: All antibodies are offered in different format and size with the Suffix after the Catalog #s; "L", "S" & "T" for Concentrated antibodies in 1.0 ml, 0.5 ml & 0.1 ml sizes and Suffix "P" for Ready To Use (RTU) in 7 ml.

CA IX (clone ZR367)

Recognizes a glycoprotein of ~200kDa, identified as carbonic anhydrase IX (CAIX/gp200). In the normal kidney, gp200 is localized along the brush border of the pars convoluta and pars recta segments of the proximal tubule and focally along the luminal surface of Bowman's capsule adjoining the outgoing proximal tubule. This MAb may help investigate carcinomas of proximal nephrogenic differentiation, especially those showing tubular differentiation.

Species: Rabbit Monoclonal **Cat#: Z2740**

IHC: Normal human renal tissue stained with ZR367

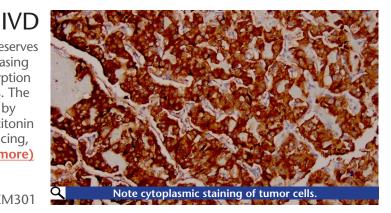


Calcitonin (clone ZM301)

Calcitonin is a 32 amino acid polypeptide hormone that preserves skeletal integrity and reduces blood calcium levels by decreasing osteoclast activity in bones, calcium and phosphate reabsorption by kidney tubules, and calcium absorption by the intestines. The secretion of Calcitonin from the thyroid is regulated in part by estrogen, which increases Calcitonin mRNA levels. The Calcitonin gene, CALCA, undergoes tissue-specific RNA alternative splicing, resulting in the production of different mRNA transcripts. (more)

Species: Mouse Monoclonal **Cat#: Z2731**

IHC: Human thyroid medullary carcinoma stained with ZM301

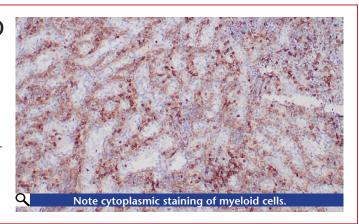


CD13 (clone ZM287)

IVD

Recognizes an integral membrane glycoprotein of 150kDa, identified as CD13 (also known as aminopeptidase-N). The antibody recognizes an extracellular epitope. The CD13 antigen is present on most cells of myeloid origin, including granulocytes, monocytes, mast cells, and GM-progenitor cells. It is also expressed by most AML and CML in myeloid blast crises and in a smaller fraction of lymphoid leukemias. CD13 is absent from normal lymphocytes, platelets, and erythrocytes. CD13 is... (more)

Species: Mouse Monoclonal **Cat#:** <u>Z2524</u> **IHC:** Human spleen stained with ZM287

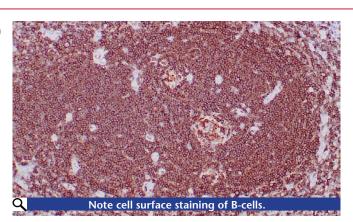


CD20 (clone ZR243)

IVD

Recognizes a protein of 30-33kDa, which is identified as CD20. CD20 is expressed by pre-B-cells and persists during all stages of B-cell maturation but is lost upon terminal differentiation into plasma cells. This MAb can be used for immunophenotyping of leukemia and malignant cells, B lymphocyte detection in peripheral blood, and B cell localization in tissues. Reactivity has also been noted with Reed-Sternberg cells in cases of Hodgkin's disease... (more)

Species: Rabbit Monoclonal **Cat#:** <u>Z2717</u> **IHC:** human lymph stained with with ZR243

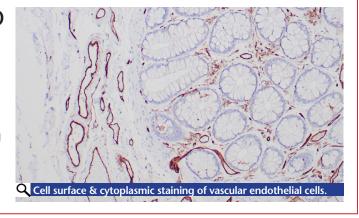


CD31 (clone ZR274)

IVD

CD31 (PECAM-1) is a transmembrane glycoprotein member of the immunoglobulin supergene family of adhesion moleculesand is expressed by stem cells of the hematopoietic system. CD31 MAb reacts with normal, benign, and malignant endothelial cells, which make up the blood vessel lining. The level of CD31 expression can help to determine the degree of tumor angiogenesis, and a high level of CD31 expression may imply a rapidly growing tumor and potentially a predictor of tumor recurrence.

Species: Rabbit Monoclonal **Cat#:** <u>Z2725</u> **IHC:** Human colon stained with ZR274

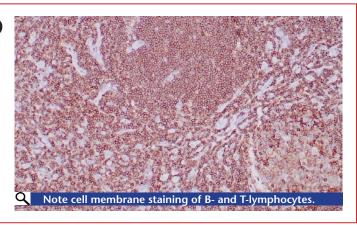


CD45 (LCA) (clone ZR361)

IVD

Antibody to CD45 is useful in the differential diagnosis of lymphoid tumors from non-hematopoietic undifferentiated neoplasms. CD45R, also designated CD45 and PTPRC, has been identified as a transmembrane glycoprotein, broadly expressed among hematopoietic cells. According to cell type, multiple isoforms of CD45R are distributed throughout the immune system. These isoforms arise because of alternative splicing of exons 4, 5, and 6. CD45R functions as a phosphor-tyrosine phosphatase.

Species: Rabbit Monoclonal **Cat#:** <u>Z2737</u> **IHC:** Human lymph node stained with ZR361

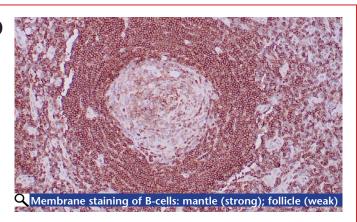


CD45RA (clone ZR118)

IVD

CD45 is a family of single-chain transmembrane glycoproteins, consisting of at least four isoforms that share a common large intracellular domain. This protein is detected in most haematolymphoid neoplasms, i.e., leukemias and malignant lymphomas. Overall, about 90% of malignant lymphomas are CD45 positive. CD45 is an essential marker in the primary tumor screening panel to identify haematolymphoid differentiation. Loss of CD45 in precursor B-cell neoplasms is a negative prognostic parameter.

Species: Rabbit Monoclonal **Cat#:** <u>Z2681</u> **IHC:** Human lymph node stained with ZR118



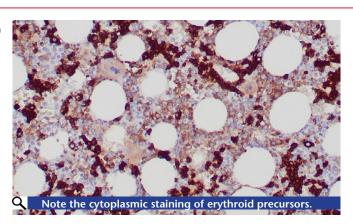
CD71 (clone ZM136)

IVD

ZM136 recognizes a ~90-95kDa protein identified as cell surface transferrin receptor (CD71) and is is highly specific for CD71 and shows no cross-reaction with other related proteins. Ligand for transferrin receptor is the serum iron transport protein, transferrin. This receptor is broadly distributed in carcinomas, sarcomas, leukemias, and lymphomas. CD71/Transferrin receptor has been reported to be associated with cell proliferation in both normal and neoplastic tissues and helpful in predicting clinical... (more)

Species: Mouse Monoclonal Cat#: <u>72685</u>

IHC: Human bone marrow stained with ZM136



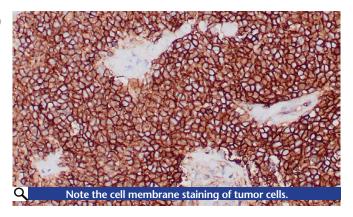
CD99 (clone ZM139)

IVD

Recognizes a sialoglycoprotein of 27-32kDa, identified as CD99, or MIC2 gene product, or E2 antigen. CD99 is implicated in various cellular processes including homotypic aggregation of T cells, upregulation of T cell receptor and MHS molecules, apoptosis of immature thymocytes and leukocyte diapedesis. Most pancreatic islet cells, Sertoli cells of the testis, and some endothelial cells express this antigen. MIC2 is strongly expressed on Ewing's sarcoma cells and primitive peripheral neuroectodermal tumors. (more)

Species: Mouse Monoclonal **Cat#: Z2686**

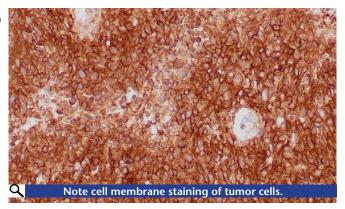
IHC: Human Ewing's sarcoma stained with ZM139



CD117 (clone ZM321) ASR (US)/IVD (International)

Recognizes a protein of 145kDa, CD117/p145kit and is found on a variety of tumor cells including follicular and papillary carcinoma of the thyroid, adenocarcinomas from endometrium, lung, ovary, pancreas, and breast as well as malignant melanoma, endodermal sinus tumor, and small cell carcinoma. However, anti-CD117 has been particularly useful in differentiating gastrointestinal stromal tumors from Kaposi's sarcoma, tumors of smooth muscle origin, fibromatosis, and neural tumors of the GI tract. (more)

Species: Mouse Monoclonal **Cat#:** <u>Z2628</u> **IHC:** Human GIST stained with ZM321

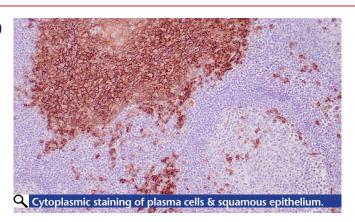


CD138 (clone ZR251)

IVD

CD138, also designated syndecan-1. The syndecans' main functions are to control cell growth and differentiation as well as to maintain cell adhesion and cell migration. Under normal conditions CD138 is predominantly expressed on mature plasma cells and early preB-cells, while other haematolymphoid cells are negative. CD138 is expressed in practically all cases of plasma cell malignancies and various non-haematolymphoid types of carcinomas. (more)

Species: Rabbit Monoclonal **Cat#:** <u>Z2490</u> **IHC:** Human tonsil stained with ZR251

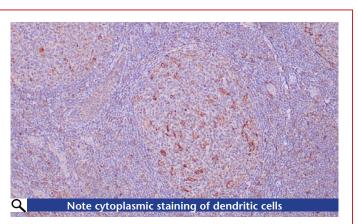


CD205 (clone ZM360)

IVD

DEC-205 (LY75, lymphocyte antigen 75, GP200-MR6) is a 1,695 residue (mature form) multi-lectin receptor that belongs to the MMR (macrophage mannose receptor) family of multidomain molecules. MMR family molecules mediate membrane receptor targeting endosomes or lysosomes rich in major histocompatibility complex class II (MHC II) products. Expressed in mature dendritic cells (DC), DEC-205 contains an extracellular N-terminal cysteine-rich domain, a fibronectin type II domain, ... (more)

Species: Mouse Monoclonal **Cat#: Z2736 IHC:** Human tonsil stained with ZM360



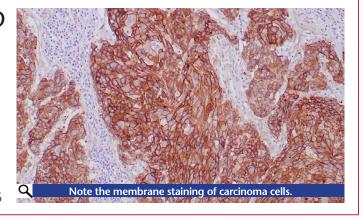
EGFR (clone ZR16)

IV[

Recognizes a protein of 170kDa, identified as EGFR. EGFR is type I receptor tyrosine kinase with sequence homology to erbB-1, -2, -3 -4 or HER-1, -2, -3 -4. It binds to Epidermal Growth Factor (EGF), Transforming Growth Factor-a (TGF-a), Heparin-binding EGF (HB-EGF), amphiregulin, betacellulin, and epiregulin. EGFR is overexpressed in breast, brain, bladder, lung, gastric, head & neck, esophagus, cervix, vulva, ovary, and endometrium tumors. It is predominantly present in squamous cell carcinomas.

Species: Rabbit Monoclonal **Cat#: Z2743**

IHC: Human lung squamous cell carcinoma stained with ZR16



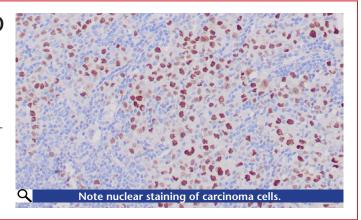
EZH2 (clone ZR150)

 $IV\Gamma$

EZH2 is the catalytic subunit of polycomb repressive complex 2 (PRC2) and generates a methylation epigenetic mark at lysine 27 residue of histone H3 (H3K27me3) to silence gene expression. EZH2 target genes are involved in many biological processes such as stem cell pluripotency, cell proliferation, and oncogenic transformation. The anti-EZH2 expression is found in many malignancies: prostate, breast, uterine, gastric, renal, melanoma and in non-small cell lung cancers and lymphoma.

Species: Rabbit Monoclonal **Cat#: Z2692**

IHC: Human breast ductal carcinoma stained with ZR150



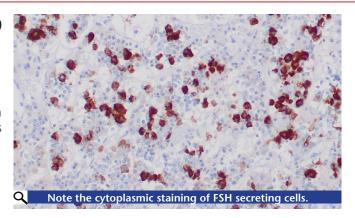
FSH (clone ZR246)

IVD

Reacts with a protein of 22kDa, identified and is specific for the beta subunit of FSH. Follicle stimulating hormone (FSH) is a hormone synthesized and secreted by gonadotrophs in the anterior pituitary gland. In the ovary, FSH stimulates growth of immature Graafian follicles to maturation. In men, FSH enhances production of androgen-binding protein by the Sertoli cells of the testis and is critical for spermatogenesis. FSH is a useful marker in the classification of pituitary tumors and the study of pituitary disease.

Species: Rabbit Monoclonal **Cat#: Z2721**

IHC: Human normal pituitary stained with ZR246



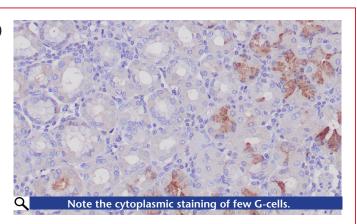
Gastrin (clone ZM359)

IVD

Gastrin is a hormone whose main function is to stimulate secretion of hydrochloric acid by the gastric mucosa, which results in gastrin formation inhibition. This hormone also acts as a mitogenic factor for gastrointestinal epithelial cells. Gastrin has been suggested to induce leukocyte-endothelial cell interactions and to have a pro-inflammatory effect. Anti-gastrin stains G-cells of human antral/pyloric mucosa and cells producing gastrin or a structural gastrin analog as is seen in stomach. (more)

Species: Mouse Monoclonal Cat#: **Z2735**

IHC: Human gastric antral mucosa stained with ZM359

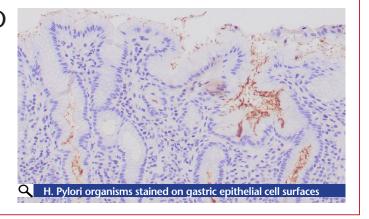


H. Pylori (clone ZR102)

RUO

Helicobacter pylori is strongly associated with inflammation of the stomach and is also implicated in the development of gastric malignancy and peptic ulcers and chronic gastritis in humans. It is associated with duodenal ulcers and may be involved in developing adenocarcinoma and low-grade lymphoma of mucosa-associated lymphoid tissue in the stomach. This antibody stains the individual H. pylori bacterium when it presents on the surface of the epithelium or in the cytoplasm of the epithelial cells. (more)

Species: Rabbit Monoclonal **Cat#:** <u>Z2518</u> **IHC:** Human stomach stained with ZR102

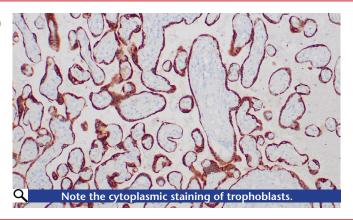


HCG (clone ZR362)

IVD

Human chorionic gonadotropin (hCG) is a glycoprotein hormone synthesized in syncytiotrophoblastic cells of the placenta and certain trophoblastic tumors. HCG is found in moles and choriocarcinoma, chorionic components of germ cell tumors, and syncytiotrophoblast-like cells in seminoma/dysgerminoma and embryonal carcinoma. In diagnostic pathology, hCG is a valuable marker for classifying germ cell tumors and identifying extragonadal germ cell tumors. (more)

Species: Rabbit Monoclonal **Cat#:** <u>Z2738</u> **IHC:** Human placenta stained with ZR362

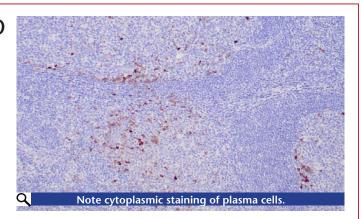


IgG (clone ZR247)

IVD

Recognizes 75kDa gamma heavy chain of human immunoglobulins. It does not cross-react with (IgA), (IgM), (IgE), (IgD), heavy chains, T-cells, monocytes, granulocytes, or erythrocytes. Useful in the identification of leukemias, plasmacytomas, and certain non-Hodgkin s lymphomas. The most common feature of these malignancies is the restricted expression of a single heavy chain class. Demonstration of clonality in lymphoid infiltrates indicates that the infiltrate is clonal and therefore malignant.

Species: Rabbit Monoclonal **Cat#:** <u>Z2722</u> **IHC:** Human tonsil stained with ZR247

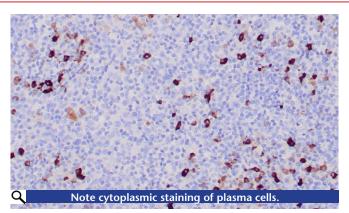


IgM (clone ZR249)

IVD

Recognizes mu heavy chain of human immunoglobulins. It does not cross-react with IgA, IgG, IgE, or IgD, heavy chains, T-cells, monocytes, granulocytes, or erythrocytes. This antibody is useful in identifying leukemias, plasmacytomas, and certain non-Hodgkin's lymphomas. Aberrant levels are associated with immune deficiency states, hereditary deficiencies, myeloma, Waldenstrom's macroglobulinemia, chronic infection, and hepatocellular disease. (more)

Species: Rabbit Monoclonal **Cat#:** <u>Z2723</u> **IHC:** Human tonsil stained with ZR249

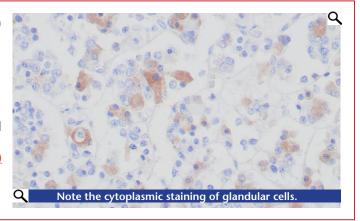


LH (clone ZR173)

IVD

LH is synthesized and secreted by gonadotrophs in the anterior lobe of the pituitary gland. 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 the classification of pituitary tumors and the study of pituitary disease. (more)

Species: Rabbit Monoclonal **Cat#:** <u>Z2701</u> **IHC:** Human pituitary stained with ZR173

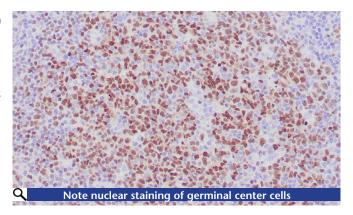


LMO-2 (clone ZR87)

IVD

The LMO2 protein has a central and crucial role in hematopoietic development and in normal and lymphatic endothelial cells involving the regulation of angiogenesis and lymph-angiogenesis. Anti-LMO2 is valuable as a tool in the identification of lymphomas of B-cell origin. LMO2 is useful in differentiating follicular lymphoma (LMO2+) from nodal marginal zone lymphoma (LMO2-). It also is positive in Hodgkin s and Burkitt s lymphomas. (more)

Species: Rabbit Monoclonal **Cat#:** <u>Z2397</u> **IHC:** Human lymph node stained with ZR87

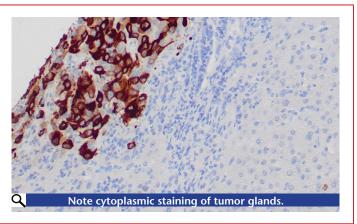


Mammaglobin (clone ZR363) |VD

Mammaglobin is a cytoplasmic protein, a mammary-specific member of the uteroglobin family and related to a family of epithelial secretory proteins including prostatein and Clara cell protein. Mammaglobin occurs in about 80% of breast carcinomas. Up to 15% of nonbreast carcinomas (such as stomach, lung, colon, hepatobiliary, thyroid, ovarian, and urothelial carcinomas) have been reported positive, usually only focally. Mammaglobin is a sensitive and fairly specific marker for breast carcinoma. (more)

Species: Rabbit Monoclonal **Cat#: Z2739**

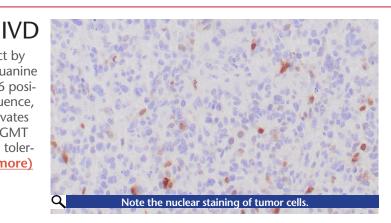
IHC: Human metastatic breast carcinoma stained with ZR363



MGMT (clone ZM314)

Cancer chemotherapeutic alkylating agents (e.g. BCNU,) act by inducing the formation of lethal cross links at the O6 alkylguanine position in DNA. MGMT transfers alkyl adducts from the O6 position of guanine in DNA to a cysteine residue in its own sequence, thereby restoring DNA to its intact state. This transfer inactivates the MGMT enzyme and is irreversible; hence the level of MGMT in a cell is directly proportional to the level of DNA damage toleration. In normal tissues, MGMT acts as a suppressor of... (more)

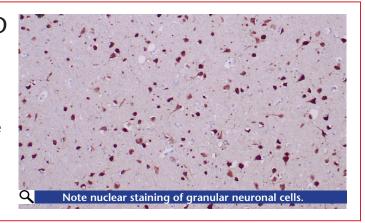
Species: Rabbit Monoclonal **Cat#:** <u>Z2618</u> **IHC:** Human glioma stained with ZM314



NeuN (clone ZR386)

NeuN antibody specifically recognizes the DNA-binding, neuron-specific protein NeuN. NeuN protein distributions are apparently restricted to neuronal nuclei and some proximal neuronal processes in both fetal and adult brain although, some neurons fail to be recognized by NeuN at all ages: INL retinal cells, Cajal-Retzius cells, Purkinje cells, inferior olivary and dentate nucleus neurons, and sympathetic ganglion cells are examples. Immunohistochemically detectable ... (more)

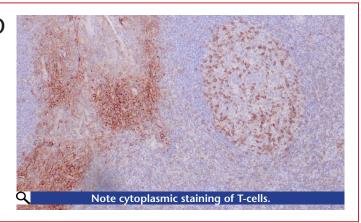
Species: Rabbit Monoclonal **Cat#:** <u>Z2677</u> **IHC:** Human cerebrum stained with ZR386



PD-1 (PDCD1) (clone ZM357) |VD

PDCD-1 (programmed cell death-1 protein), designated CD279, is a type I transmembrane receptor and a member of the immunoglobin gene superfamily. It is expressed on activated T-cells, B-cells, and myeloid cells. Anti-PDCD-1 is a marker of angioimmunoblastic lymphoma and suggests a unique cell of origin for this neoplasm. Unlike CD10 and BCL6, PDCD-1 is expressed by few B-cells, so anti-PDCD-1 may be a more specific and valuable diagnostic marker in angioimmunoblastic lymphoma. (more)

Species: Mouse Monoclonal **Cat#:** <u>Z2424</u> **IHC:** Human tonsil stained with ZM357



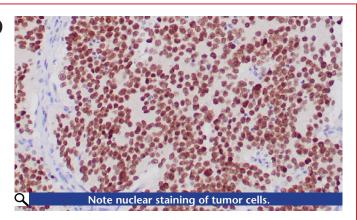
PHOX2B (clone ZR292)

IVD

Paired homeobox protein 2B (PHOX2B) is a transcription factor located on chromosome 4p13, which is essential for forming autonomic ganglia in the autonomic nervous system. PHOX2B is expressed in neuroblastoma, brain, and adrenal glands. PHOX2B deficiency can lead to susceptibility to congenital central hypoventilation syndrome (CCHS) and neuroblastoma type 2 (NBLST2).

Species: Rabbit Monoclonal **Cat#:** <u>Z2730</u>

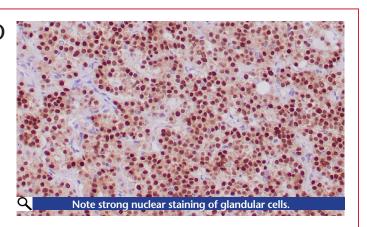
IHC: Human neuroblastoma stained with ZR292



PIT-1/POU1F1 (clone ZM385) IVD

Pit-1, also known as growth hormone factor-1 (GHF-1) is essential for the normal development of the anterior pituitary gland. Pit-1 acts as a repressor of gene expression, which allows for the differentiation of specific cell types. Mutations in the Pit-1 gene are believed to result in combined pituitary hormone deficiency (CPHD) for growth hormone, Prolactin, and thyroid-stimulating hormone. The gene which encodes Pit-1 maps to human chromosome 3p11.2. (more)

Species: Mouse Monoclonal **Cat#:** <u>Z2676</u> **IHC:** Human pituitary stained with ZM385



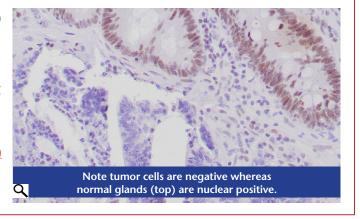
PMS2 (clone ZR317)

IVE

PMS2 is involved in DNA mismatch repair. Defects in PMS2 are the cause of hereditary non-polyposis colorectal cancer type 4 (HNPCC4). Mutations in more than one gene locus can be involved alone or in combination in the production of the HNPCC phenotype (also called Lynch syndrome). Most families with clinically recognized HNPCC have mutations in either MLH1 or MSH2 genes. HNPCC is an autosomal, dominantly inherited disease associated with a marked increase in cancer susceptibility. (more)

Species: Rabbit Monoclonal **Cat#: Z2621**

IHC: Human colon adenocarcinoma stained with ZR317



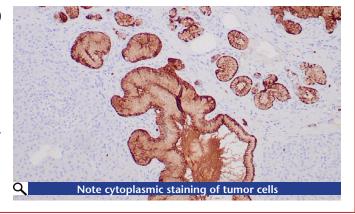
\$100P (clone ZR115)

IVD

S100P is a 95-amino-acid protein and a member of the S100 family. S100P has been shown to mediate tumor growth, metastasis, and invasion. Overexpression of S100P has been detected in several cancers such as breast, colon, prostate, pancreatic, and lung carcinomas, and the protein has been functionally implicated in carcinogenic processes. S100P could serve as a diagnostic marker, prognostic/predictive indicator, and therapeutic target for different carcinomas. (more)

Species: Rabbit Monoclonal **Cat#: Z2419**

IHC: Human pancreatic ductal carcinoma stained with ZR115

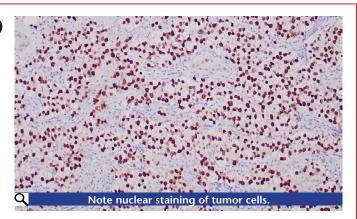


SALL4 (clone ZR276)

IVD

Sall3 (SALL3, sal-like 3) and Sall4 (SALL4, sal-like 4) are mammalian homologs of the Drosophila region-specific homeotic gene spalt, which encodes a zinc finger-containing transcription regulator. Drosophila spalt is an essential genetic component required for the specification of the posterior head and anterior tail as opposed to the trunk. Sall3 is expressed at 24 weeks of gestation in several regions of the human fetal brain, including neurons of the hippocampus formation and mediodorsal and ... (more)

Species: Rabbit Monoclonal **Cat#:** <u>Z2726</u> **IHC:** Human seminoma stained with ZR276

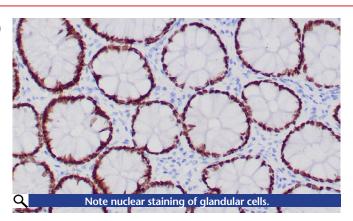


SATB2 (clone ZR167)

IVD

SATB2 is a DNA binding protein specifically binds nuclear matrix attachment regions. It is involved in transcription regulation and chromatin remodeling. SATB2 expression in colorectal carcinomas (CRC) is correlated with a good prognosis. In laryngeal squamous cell carcinoma, it functions as a tumor suppressor, wherein loss of expression is positively correlated with high tumor grade and recurrence. Moreover, SATB2, in combination with CK20, could identify almost all CRC's. Upper GI carcinomas... (more)

Species: Rabbit Monoclonal **Cat#:** <u>Z2479</u> **IHC:** Human colon stained with ZR167



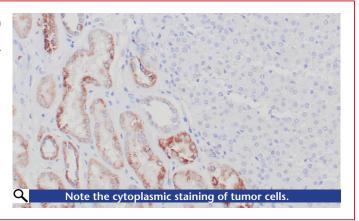
SDHB (clone ZR339)

IVE

Succinate dehydrogenase B (SDHB) is an iron-sulfur subunit of mitochondrial complex II, a vital component of the citric acid cycle and the electron transport chain, a respiratory complex that catalyzes the oxidation of succinate in the mitochondrial membrane. Many cancers are generally positive for SDHB, including renal cell carcinomas and gastrointestinal stromal tumors. A subset of RCC and GIST tumors associated with SDH mutations, Carney-Stratakis Syndrome or Carney Triad exhibit a loss of SDHB expression.

Species: Rabbit Monoclonal **Cat#: Z2645**

IHC: Human succinate dehydrogenase deficient RCC stained with ZR339



Smoothelin (clone ZR169)

IVI

Smoothelin is found exclusively in contractile smooth muscle cells. 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 antibody an attractive diagnostic tool. Anti-smoothelin immunostaining can be helpful in differentiating benign (+) from malignant smooth muscle tumors (-) and other mimics (-). (more)

Species: Rabbit Monoclonal **Cat#: Z2465 IHC:** Human colon stained with ZR169



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(626) 355-2053

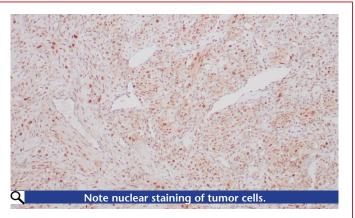
TFE3 (clone ZR365)

IVD

Transcription factor E3 (TFE3) belongs to the basic helix-loop-helix zipper transcription factor family. The TFE3 gene is expressed in various cells of the human body, and participates in the regulation of various genes. The rearrangement of this gene is associated with a variety of tumors, and it is highly expressed in acinar soft tissue sarcoma with TFE3 fusion gene, Xp11.2 translocation/TFE3 gene fusion-related renal cell carcinoma, and in perivascular epithelioid cell tumors.

Species: Rabbit Monoclonal **Cat#:** <u>Z2605</u>

IHC: Human ovarian sclerosing stromal tumor stained with ZR365





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