ZETA Corporation

Precision IVD Antibodies for Anatomic Pathology

PRODUCT FOCUS -- Tools for the diagnosis of Head and Neck Cancer

Head and Neck Cancer Awareness Month, April 2026 Head and neck cancers are malignancies that arise in the nasal cavity, sinuses, lips, mouth, salivary glands, throat, or larynx. Usually, these cancers begin in the squamous cells that line the moist mucosal surfaces of the mouth, nose, and throat. The American Cancer Society estimates that about 60,500 people in the United States will receive a diagnosis of cancer of the oral cavity, pharynx, or larynx, the major types of head and neck cancer, in 2026. Unfortunately, about 13,150 people will die from these diseases.

Common IHC markers for HNSCC include **p16** (expression correlates with good prognosis), **p63** (increased expression in up to 80% of primary HNSCC tumors), **HPV** (HPV-positive HNSCCs have distinct clinical features and a better prognosis compared to HPV-negative tumors.), **Ki-67** (high Ki-67 index value is associated with a higher rate of lymph node metastasis), **PD-L1** (PD-L1 status by IHC provides information for HNSCC patients) and **NUT** (midline carcinoma of the head and neck). Additonal markers described here are useful in the diagnosis of thyroid cancer.

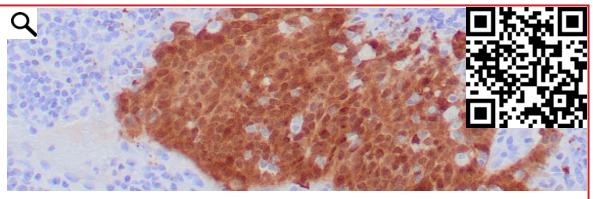
Zeta Corporation offers recombinant RAbMono™ (Rabbit Monoclonal) and MonoMAb™ (Mouse Monoclonal) recombinant IVD antibodies researched and developed for the anatomic pathology market for Immunohistochemistry. Zeta is incorporating highly sensitive technology to develop many of these primary antibodies that are target-validated and characterized for IHC on FFPE tissue sections. Zeta provides 400+ IVD antibodies for cancer screening and diagnosis.

Head and Neck Squamous Cell Carcinoma

p16^{INK4a} (recombinant; clone ZR407) IVD (Non-EU)/ RUO (EU)

p16^{INK4a} is a tumor suppressor protein involved in the pathogenesis of a variety of malignanciesincluding melanomas, gliomas, esophageal, pancreatic, lung, and urinary bladder carcinomas, and some types of leukemia. Expression of p16^{INK4a} (p16 positive) is highly correlated with human papilloma virus (HPV) infection in head and neck squamous cell carcinomas (HNSCC). p16^{INK4a} status is an important prognostic indicator in HNSCC and the p16INK4a positive/HPV16 negative group is... (more)

Species: Rabbit Monoclonal **Cat#:** Z2763

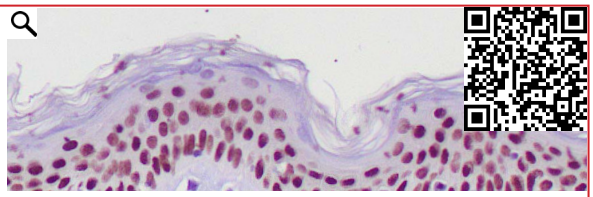


IHC: H&N invasive squamous cell carcinoma stained with ZR407

P63 (recombinant; clone ZM70) IVD

Recognizes p63, a homolog of the tumor suppressor p53. p63 has been reported as a useful marker for differentiating benign from malignant lesions in the prostate, particularly when used in combination with markers of high molecular weight cytokeratins and the prostate-specific marker AMACR (P504S). p63 has also been shown to be a sensitive marker for lung squamous cell carcinomas (SqCC , with a sensitivity of ~90%. Specificity for lung SqCC, vs lung adenocarcinoma (LADC), is ... (more)

Species: Mouse Monoclonal **Cat#:** Z2380

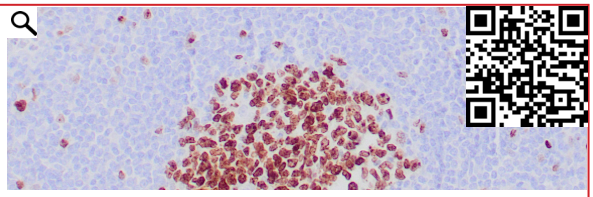


IHC: Human skin stained with ZM70

Ki-67 (recombinant; clone ZR433) IVD (Non-EU)/ RUO (EU)

Ki-67 an excellent marker for proliferating cells and is commonly used as one of the prognostic factors in cancer studies. A correlation has been demonstrated between Ki-67 index and the histo-pathological grade of neoplasms. Ki-67 labeling index has been shown to be a prognostic marker in a number of neoplasms including grade II astrocytoma, oligodendroglioma, colon carcinoma, and breast carcinoma. In general, Ki-67 is a good marker of proliferating cell populations. (more)

Species: Rabbit Monoclonal **Cat#:** Z2789

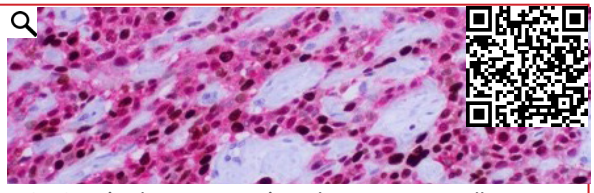


IHC: Human tonsil stained with ZR433

HPV Infected Tumor Cocktail DUALstain™ (recombinant; clones ZR407 & ZM67) IVD (Non-EU)/ RUO(EU)

Targets cell cycle dysregulation caused by high-risk HPV. Antibody cocktail containing two defined monoclonals (p16INK4a and Ki-67) that recognize specific proteins that help assess the prognosis for tumors that have been shown to have previous HPV infection. The cocktail is useful in the identification of tumor cells co-expressing both tumor suppression marker p16INK4a (red) and cell proliferation marker Ki-67 (brown) in ... (more)

Species: Rabbit and Mouse Monoclonals **Cat#:** Z2835

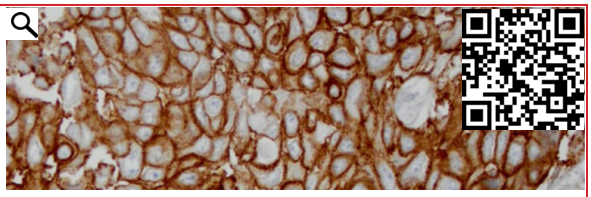


IHC: Cervical HPV-associated squamous cell carcinoma (SCC) stained with HPV INFECTED TUMOR Cocktail Antibodies (more)

PD-L1 (recombinant; clone ZR3) IVD

The interaction of PD-L1 with its receptor PD-1 in involved with regulating T cell activation and tolerance during pregnancy, tissue allografts, autoimmune disease and malignant transformation. Binding of PD-L1 to PD-1 induces apoptosis or exhaustion in activated T cells, and blockade of this interaction has been shown to enhance the antitumor activity of T cells. PD-L1 is frequently over expressed in placenta, and many human tumors such as melanoma, diffuse large B-cell lymphoma... (more)

Species: Rabbit Monoclonal **Cat#:** Z2002



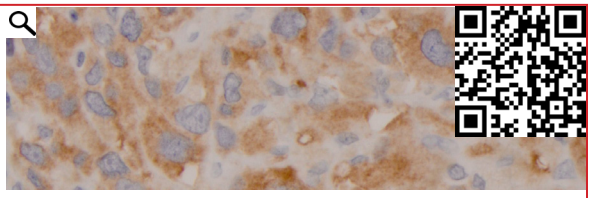
IHC: Human lung squamous cell carcinoma stained with ZR3

Thyroid Cancer

BRAF (V600E) (recombinant; clone ZR6) IVD (Non-EU)/ RUO (EU)

The *BRAF* gene encodes a protein that is part of the RAS-RAF-MEK-ERK signaling pathway, which regulates cell division and proliferation. The V600E mutation is commonly associated with various cancers, including melanoma, colorectal cancer, and certain types of thyroid cancer, lung cancer, and Hairy cell leukemia. The BRAF (V600E) antibody specifically binds to the mutated BRAF protein, allowing pathologists to detect the mutation via immunocytochemistry in cancer tissue... (more)

Species: Rabbit Monoclonal **Cat#:** Z2811

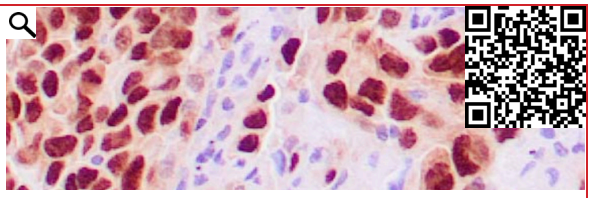


IHC: Human melanoma stained with ZR6

TTF-1/NKX2.1 (recombinant; clone ZR176) IVD

TTF-1 is a member of the NKx2 family of homeodomain transcription factors. It is expressed in epithelial cells of the thyroid gland and the lung. Anti-TTF-1 is useful in differentiating primary adenocarcinoma of the lung from metastatic carcinomas originating in the breast, mediastinal germ cell tumors, and malignant mesothelioma. It can also be used to differentiate small cell lung carcinoma from lymphoid infiltrates. TTF-1 reactivity is also seen in thyroid malignancies. (more)

Species: Rabbit Monoclonal **Cat#:** Z2370

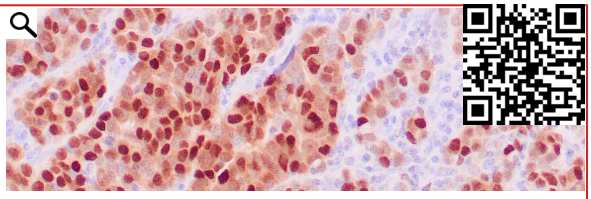


IHC: Human lung adenocarcinoma stained with ZR176

PAX-8 (recombinant; clone ZM28) IVD

Mutations in the PAX-8 gene have been associated with thyroid dysgenesis, thyroid follicular carcinomas, and atypical thyroid adenomas. 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 expression is reported in renal tubules as well as renal cell carcinoma, nephroblastoma, and seminoma. (more)

Species: Mouse Monoclonal **Cat#:** Z2357



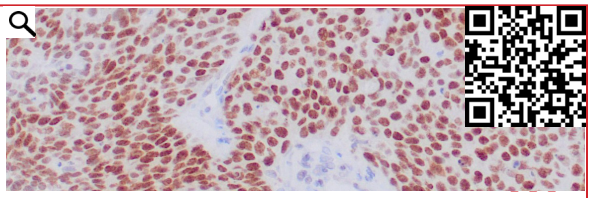
IHC: Human thyroid carcinoma stained with ZM28 Note nuclear stain of tumor cells.

Poorly-differentiated NUT Carcinoma

NUT (recombinant; clone ZR453) IVD (Non-EU)/ RUO (EU)

The NUT antibody detects a protein called NUT (Nuclear Protein in Testis), which is involved in a variety of cellular processes. Abnormal expression has been associated with certain cancers, specifically NUT carcinoma, a rare and aggressive type of cancer that primarily affects the thoracic and head and neck regions. It is characterized by the presence of a NUT fusion gene, typically resulting from a chromosomal translocation. NUT antibody staining is nuclear with > 90% of cells positive, and..... (more)

Species: Rabbit Monoclonal **Cat#:** Z2810



IHC: Human NUT carcinoma stained with ZR453

Related ABs	Clone	Species	Cat. #
ALDH1A1	ZM71	Mouse	Z2387
CD44	ZR184	Rabbit	Z2679
Cytokeratin 14	ZM372	Mouse	Z2663
Cytokeratin 17	E3	Mouse	Z2254
Cytokeratin 5/6	D5/16B4	Mouse	Z2133
Cytokeratin 5/6	ZR412	Rabbit	Z2768
EGFR	ZR16	Rabbit	Z2743

Related ABs	Clone	Species	Cat. #
HPV Cocktail	CAMVR-1 & C1P5	Mouse	Z2657
Ki-67	MIB-1	Mouse	Z2305
Ki-67	ZM67	Mouse	Z2377
p16^{INK4a}	G175-405	Mouse	Z2117
p16^{INK4a}	JC2	Mouse	Z2567
p27^{Kip1}	SX53G8	Mouse	Z2158

Related ABs	Clone	Species	Cat. #
P40	ZR303	Rabbit	Z2733
p40	ZR8	Rabbit	Z2004
p53	ZR153	Rabbit	Z2466
RRM1	ZR114	Rabbit	Z2418
Thymidylate Synthase (TS)	ZR245	Rabbit	Z2719

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