



PRODUCT FOCUS -- Prognostic and predictive biomarkers in cancer

Prognostic and predictive immunohistochemistry (IHC) biomarkers play a pivotal role in guiding cancer treatment and assessing patient outcomes. Prognostic markers reveal disease aggression and survival odds, regardless of therapy, while predictive markers assist with the evaluation of tumor biology and disease characteristics in specific clinical settings. Together, these biomarkers contribute to disease characterization, patient stratification, and overall pathological assessment. By supporting accurate classification and aiding pathologists in clinical decision-making, IHC biomarkers provide information that could improve patient outcomes and aid treatment decisions, potentially increasing survival and quality of life for those with cancer.

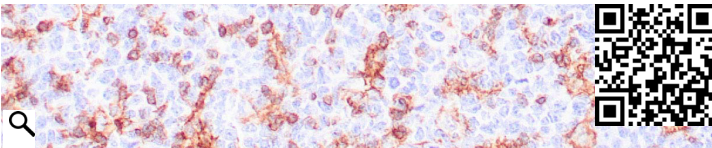
Predictive Prognosis

Positive for good prognosis (BCLL)

CD11c (clone ZM103) IVD

High expression of CD11c in certain cancers is generally associated with a better prognosis, i.e. gastric cancer, ovarian cancer and B-cell chronic lymphocytic leukemia (BCLL).

Mouse Monoclonal, recombinant Cat#: **Z2414**



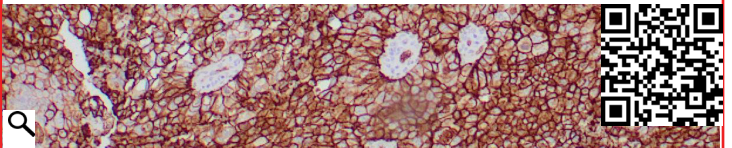
IHC: Human tonsil stained with ZM103

Positive for malignancy in various cancers

GLUT1 (clone ZR308) IVD

GLUT1 is expressed in normal tissues, however it is often overexpressed in cancerous cells, and this overexpression is linked to tumor progression, metastasis, and poorer patient outcomes in various cancers.

Rabbit Monoclonal, recombinant Cat#: **Z2585**



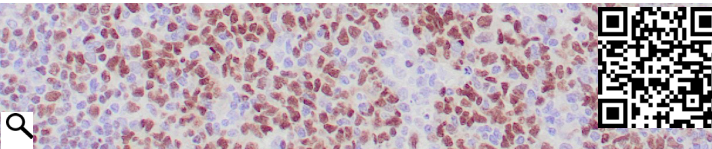
IHC: Human breast carcinoma stained with ZR308

Positive for good prognosis (lymphoma)

LMO-2 (clone ZR87) IVD

LMO-2 expression can be a good prognostic marker, particularly in Diffuse Large B Cell Lymphoma (DLBCL). High expression of LMO-2 protein has been associated with longer survival in DLBCL patients.

Rabbit Monoclonal, recombinant Cat#: **Z2397**



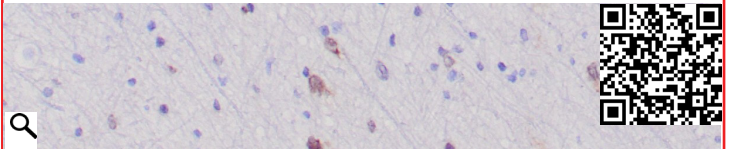
IHC: Human lymph node stained with ZR87

Positive for good prognosis (glioma)

IDH1 (R132H) (clone ZR7) IVD

In glioma, the presence of an IDH1 mutation is generally associated with a better prognosis compared to gliomas with the normal, or wild-type, IDH1 gene. Patients often experience longer overall survival and progression-free survival.

Rabbit Monoclonal, recombinant Cat#: **Z2010**



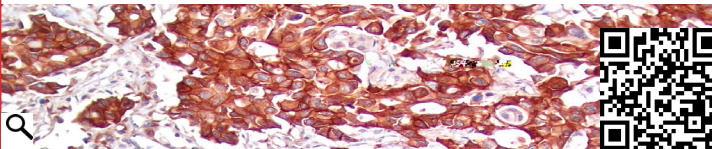
IHC: Human glioma stained with ZR7

Positive for poor prognosis (NSCLC)

c-MET (clone ZR478) IVD; RUO(EU)

In Non-Small Cell Lung Cancer (NSCLC), c-MET overexpression and amplification detected by immunohistochemistry (IHC) are considered poor prognostic markers, indicating a worse clinical outcome.

Rabbit Monoclonal, recombinant Cat#: **Z2848**



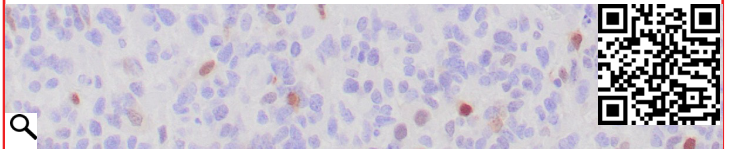
IHC: Human colon carcinoma stained with ZR478

Predictive biomarker in gliomas

MGMT (clone ZM314) IVD

MGMT promoter methylation is a well-established biomarker in gliomas, particularly glioblastoma (GBM). Assessment of MGMT methylation status provides insight into tumor molecular characteristics and may be considered alongside other clinical and pathological findings.

Mouse Monoclonal, recombinant Cat#: **Z2618**



IHC: Human glioma stained with ZM314



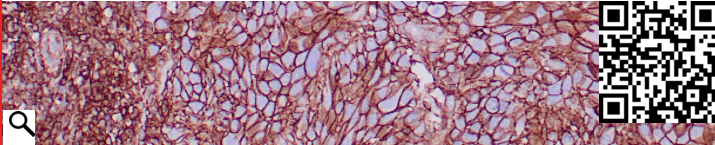
Grade of Malignancy

Positive for malignant urothelial carcinoma

CD44 (clone ZR184) IVD

CD44 can be positive in urothelial carcinoma, but its pattern varies: Strong in low-grade tumors (similar to the basal layers). Reduced or lost in high-grade, invasive tumors.

Rabbit Monoclonal, recombinant Cat#: [Z2679](#)



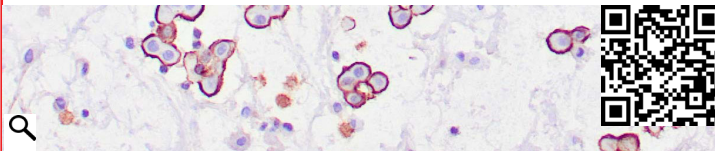
IHC: Human squamous cell carcinoma stained with ZR184

Positive for malignant thyroid cancer

HBME1 (clone HBME-1) IVD

HBME-1 is not a thyroid-specific marker, but its expression is highly associated with malignant thyroid carcinomas, especially papillary and follicular types. It is used in a panel to help distinguish malignant from benign thyroid lesions.

Mouse Monoclonal Cat#: [Z2233](#)

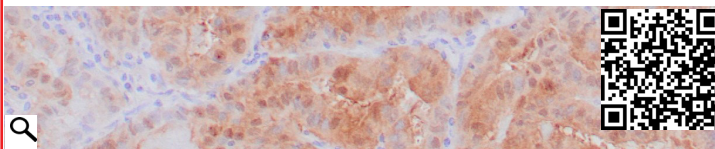


IHC: Human mesothelioma stained with HBME-1

Galectin-3 (clone ZR430) IVD; RUO(EU)

Galectin-3 IHC is often positive in malignant thyroid cancers. It is generally negative or only faintly expressed in benign thyroid lesions making it a useful marker to help differentiate malignant from benign thyroid lesions.

Rabbit Monoclonal, recombinant Cat#: [Z2786](#)

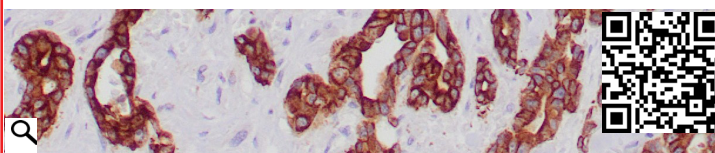


IHC: Thyroid papillary carcinoma stained with ZR430

CK19 (clone ZR143) IVD

CK19 (Cytokeratin 19) is typically positive in malignant thyroid cancers, especially in papillary thyroid carcinoma (PTC). It is one of the most commonly used immunohistochemical markers for thyroid malignancy.

Rabbit Monoclonal, recombinant Cat#: [Z2688](#)



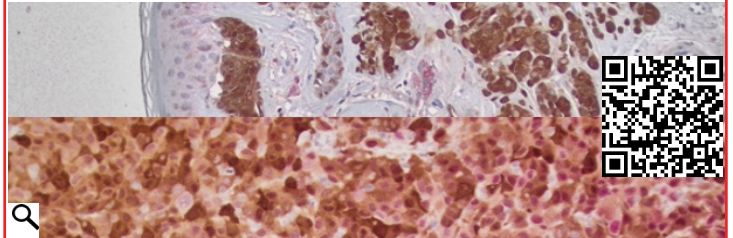
IHC: Pancreatic ductal carcinoma stained with ZR143

Malignant melanocytic lesions

NEW DUALstain™ Melanoma Cocktail (PRAME clone ZR383 + S100 clone 4C4.9) IVD; RUO (EU)

PRAME, is a **P**referentially Expressed **A**ntigen in **M**elanoma and is not expressed in normal tissue with the exception of testis. S100 protein is expressed in melanocytes and the antigen presenting cells such as the Langerhans cells in skin and interdigitating reticulum cells in the paracortex of lymph nodes. This 2-monoclonal antibody cocktail is used for differential diagnosis of melanocytic lesions.

Mouse (S100)/Rabbit (PRAME) Cocktail Cat#: [Z2838](#)



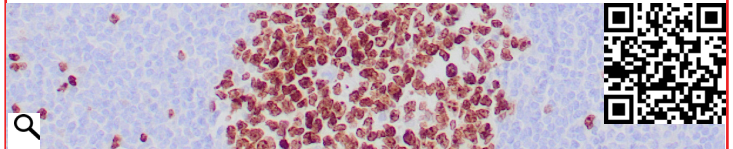
IHC: Human compound nevus (top) and malignant melanoma (bottom) stained with Melanoma Cocktail using DAB-conjugate anti-mouse (S-100) and AP-conjugated anti-rabbit (PRAME) monoclonals. Note the nevus cells are only positive for S-100 (brown) and negative for PRAME, whereas melanoma cells are positive for both PRAME (nuclear, red) and S-100 (nuclear and cytoplasmic, brown).

Higher for malignancy

Ki-67 (clone ZR433) IVD; RUO(EU)

The fraction of Ki-67-positive cells is an estimate of tissue growth rate. Benign lesions: low Ki-67 labeling (<5-10%). Malignant tumors: frequently have a higher Ki-67 index-often >20-30%, indicating rapid growth and higher aggressiveness.

Rabbit Monoclonal, recombinant Cat#: [Z2789](#)

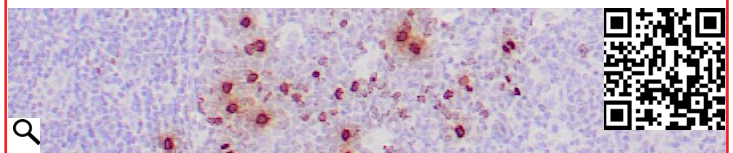


IHC: Human tonsil stained with ZR433

PHH3 (clone ZR285) IVD

PHH3 is a mitosis marker and malignant tumors generally have a higher mitotic rate. PHH3 IHC helps pathologists distinguish between benign, atypical, and high-grade malignancies.

Rabbit Monoclonal, recombinant Cat#: [Z2600](#)



IHC: Human tonsil stained with ZR285



Related to Good Prognosis/Disease-associated Biomarkers

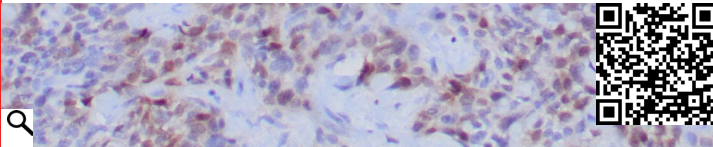
Colorectal, gastric, and lung cancers

Thymidylate Synthase (clone ZR245) IVD

TS is involved in DNA synthesis and repair, and a relevant biomarker in many cancers (especially colorectal, gastric, and lung cancers). TS expression has been studied in relation to disease characteristics and potential treatment outcomes.

Rabbit Monoclonal, recombinant

Cat#: [Z2719](#)



IHC: Human urothelial carcinoma stained with ZR245

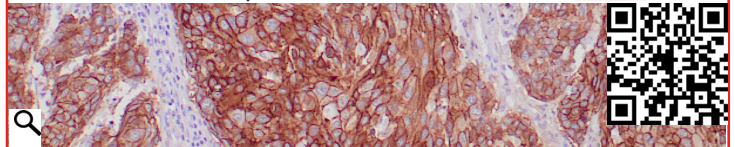
Lung adenocarcinoma

EGFR (clone ZR16) IVD

Epidermal Growth Factor Receptor is an established biomarker expressed in various epithelial malignancies, including squamous cell carcinomas and adenocarcinomas. Elevated EGFR levels correlate with malignant transformation in cancers of the lung, head and neck, skin, cervix, and esophagus.

Rabbit Monoclonal, recombinant

Cat#: [Z2743](#)



IHC: Lung squamous cell carcinoma stained with ZR16

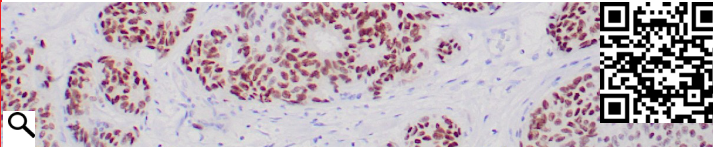
Breast cancer

Estrogen Receptor (clone ZR147) ASR/IVD

ER positivity is generally associated with a better prognosis, particularly in breast cancer. Assessment of ER expression provides insight into tumor biology and, together with other biomarkers, helps characterize and classify breast tumors for overall disease evaluation.

Rabbit Monoclonal, recombinant

Cat#: [Z2233](#)



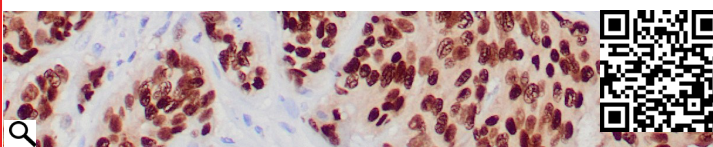
IHC: Human breast carcinoma stained with ZR147

Progesterone Receptor (clone ZR290) ASR/IVD

Progesterone receptor (PR) expression is an important biomarker in breast cancer. Assessment of PR expression contributes to tumor classification and evaluation and may provide prognostic information regarding early recurrence.

Rabbit Monoclonal, recombinant

Cat#: [Z2728](#)



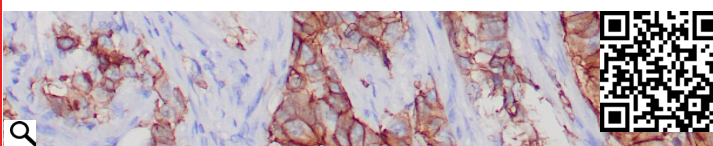
IHC: Human breast carcinoma stained with ZR290

Her-2/Neu (clone ZR218) ASR/RUO

HER2, when overexpressed, is a marker for certain cancers, i.e. breast- and gastric cancer. It's typically associated with more aggressive disease and higher likelihood of recurrence, with poor prognosis if no targeted therapy is used.

Rabbit Monoclonal, recombinant

Cat#: [Z2499](#)



IHC: Breast infiltrating ductal carcinoma stained with ZR218

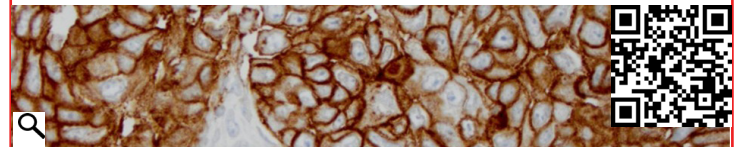
Lung carcinoma

PD-L1 (clone ZR3) IVD; RUO(EU)

Programmed Death-Ligand 1 is a widely studied biomarker in oncology expressed in many tumor types and immune cells. PD-L1 expression plays a multifaceted role in cancer patient care, serving as a prognostic indicator, diagnostic tool, and a factor in treatment stratification and monitoring disease progression.

Rabbit Monoclonal, recombinant

Cat#: [Z2002](#)



IHC: Human lung adenocarcinoma stained with ZR3

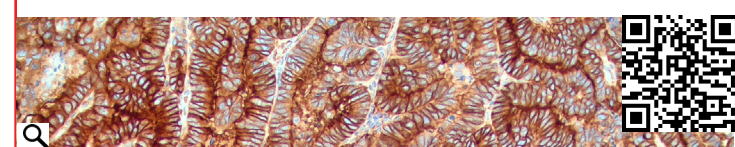
Ovarian serous carcinoma

FOLR1 (clone ZR480) IVD; RUO(EU)

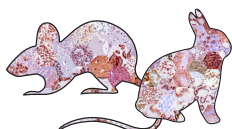
FOLR1 is a tumor marker seen in various epithelial tumors, including high-grade serous ovarian carcinoma (HGSC), endometrial carcinomas (serous subtype), some non-small cell lung cancers (adenocarcinomas). FOLR1 expression can help distinguish certain carcinomas from benign or other tumor types, as normal adult tissues generally show restricted expression (e.g., kidney, placenta, some epithelial linings).

Rabbit Monoclonal, recombinant

Cat#: [Z2850](#)



IHC: Ovarian serous carcinoma stained with ZR480



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