10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

HER-2 Antibody

Purified Mouse Monoclonal Antibody
Catalog # AO1100a

Product Information

Application	WB, IHC, E
Primary Accession	P04626
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Clone Names	9B9D8
Isotype	IgG2b
Calculated MW	137910
Description	The C-erbB-2 (HER-2/neu) gene encodes a member of the epidermal growth factor (EGF) receptor family of receptor tyrosine kinases. Amplification or overexpression of this gene has been reported in numerous cancers, including breast and ovarian tumors. High levels of c-erbB-2 were associated with estrogen receptor (ER) and progesterone receptor negativity. Overexpression of the c-erbB-2 oncogene has been shown to be associated with poor prognosis in ovarian and breast cance, The level of increased Neu expression can be a predictor of disease prognosis
Immunogen	Purified recombinant fragment of HER-2 expressed in E. Coli.
Formulation	Ascitic fluid containing 0.03% sodium azide.

Additional Information

Gene ID	2064
Other Names	Receptor tyrosine-protein kinase erbB-2, 2.7.10.1, Metastatic lymph node gene 19 protein, MLN 19, Proto-oncogene Neu, Proto-oncogene c-ErbB-2, Tyrosine kinase-type cell surface receptor HER2, p185erbB2, CD340, ERBB2, HER2, MLN19, NEU, NGL
Dilution	WB~~1/500 - 1/2000 IHC~~1/200 - 1/1000 E~~N/A
Storage	Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	HER-2 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	ERBB2
Synonyms	HER2, MLN19, NEU, NGL
Function	Protein tyrosine kinase that is part of several cell surface receptor complexes, but that apparently needs a coreceptor for ligand binding. Essential component of a neuregulin-receptor complex, although neuregulins do not interact with it alone. GP30 is a potential ligand for this receptor. Regulates outgrowth and stabilization of peripheral microtubules (MTs). Upon ERBB2 activation, the MEMO1-RHOA-DIAPH1 signaling pathway elicits the phosphorylation and thus the inhibition of GSK3B at cell membrane. This prevents the phosphorylation of APC and CLASP2, allowing its association with the cell membrane. In turn, membrane-bound APC allows the localization of MACF1 to the cell membrane, which is required for microtubule capture and stabilization.
Cellular Location	Cell membrane; Single-pass type I membrane protein. Cell projection, ruffle membrane; Single-pass type I membrane protein. Note=Internalized from the cell membrane in response to EGF stimulation. [Isoform 2]: Cytoplasm. Nucleus.
Tissue Location	Expressed in a variety of tumor tissues including primary breast tumors and tumors from small bowel, esophagus, kidney and mouth.

References

1. RR Mehta, JH McDermott, TJ Hieken, et al. J. Clin. Oncol. 1998;16:2409 - 2416. 2. Hideko Y, Vered S, and Daniel F.H, et al. J. Clin. Oncol.2001;19:2334 - 2356. 3. Magali F, Kamel H, Cécile B, et al. Clinical Cancer Research. 2000;6:4745-4754.

Images

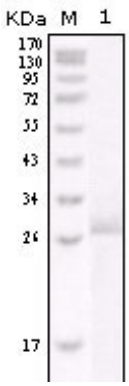

Figure 1: Western blot analysis using HER-2 mouse mAb against truncated HER-2 recombinant protein.

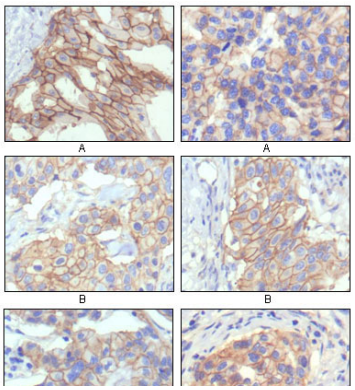

Figure 2: Immunohistochemical analysis of paraffin-embedded human breast intraductal carcinama tissue(A) and breast infiltrating ductal carcinama tissue(B) showing membrane localization using HER-2 mouse mAb with DAB staining.

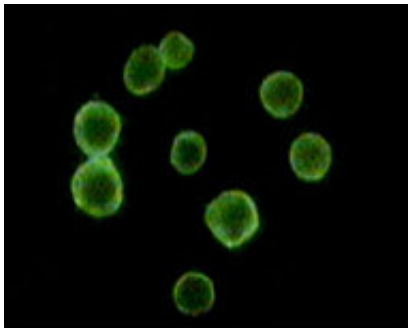

Figure 3: Immunofluorescence analysis of peripheral blood cells using anti-CD34 mAb.