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erbB-2 Antibody

Catalog # ASC10899

Product Information

Application	WB, IF, IP, E, IHC-P
Primary Accession	P04626
Other Accession	NP_004439, 54792096
Reactivity	Human, Mouse, Rat
Host	Chicken
Clonality	Polyclonal
Isotype	IgY
Calculated MW	137910
Concentration (mg/ml)	1 mg/mL
Conjugate	Unconjugated
Application Notes	erbB-2 antibody can be used for detection of erbB-2 by Western blot at 1 - 2 g/mL. Antibody can also be used for immunohistochemistry starting at 2.5 g/mL. For immunofluorescence start at 20 g/mL.

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
Target/Specificity	ERBB2;
Reconstitution & Storage	erbB-2 antibody can be stored at 4℃ for three months and -20℃, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.
Precautions	erbB-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.

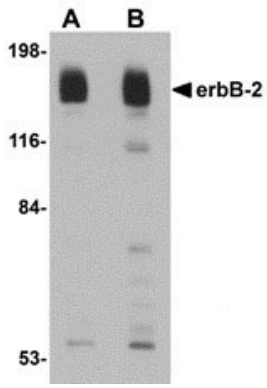
Background

erbB-2 Antibody: The ErbB family consists of four closely related tyrosine kinase receptors that act as potent mediators of normal cell growth and development. Aberrant expression or function of one or more of these receptors can play a major role in the development and evolution of cancer. ErbB-2, also known as HER2, has been implicated in the evolution of both breast and gastric cancers, and is evident in other cancer types such as ovarian and salivary gland tumors. ErbB-2 possesses an active tyrosine kinase domain, but no direct ligand has been identified yet. ErbB-2 is the preferred binding partner to the other members of the ErbB family and is thought to act primarily through the Ras-MAPK, PI3k-PKB/Akt, and PLC-PKC signaling pathways. Numerous anti-cancer strategies have been employed against erbB-2, such as antibody-based therapies to prevent ligand binding or receptor activation through dimerization, antibody-dependent cell mediated cytotoxicity, in addition to direct kinase inhibition to prevent molecular activation/downstream signaling.

References

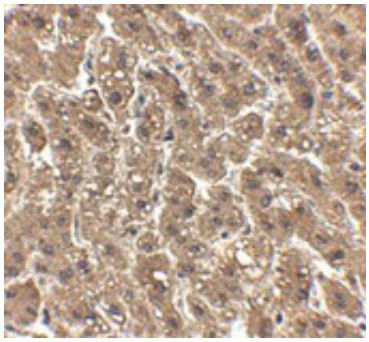
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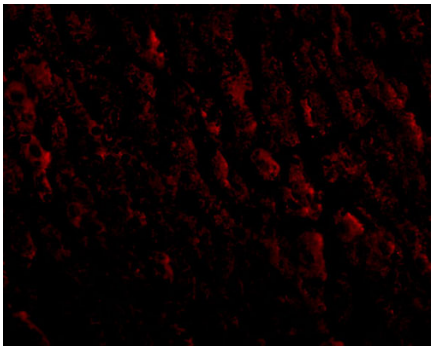
Images



Western blot analysis of erbB-2 in rat liver tissue lysate with erbB-2 antibody at (A) 1 and (B) 2 µg/mL.

Immunohistochemistry of erbB-2 in human liver tissue with erbB-2 antibody at 2.5 µg/mL.





Immunofluorescence of ERBB2 in human liver tissue with ERBB2 antibody at 20 µg/mL.

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