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Phospho-ErbB2(Y1112) Antibody

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP3093a

Product Information

Application	DB, WB, E
Primary Accession	P04626
Reactivity	Human, Rat, Mouse
Predicted	Bovine, Canine, Rabbit
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB40063
Calculated MW	137910

Additional Information

Gene ID	2064
Other Names	Receptor tyrosine-protein kinase erbB-2, 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	This ErbB2 Antibody is generated from rabbits immunized with a KLH conjugated synthetic phosphopeptide corresponding to amino acid residues surrounding Y1112 of human ErbB2.
Dilution	DB~~1:500 WB~~1:2000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	Phospho-ErbB2(Y1112) 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.

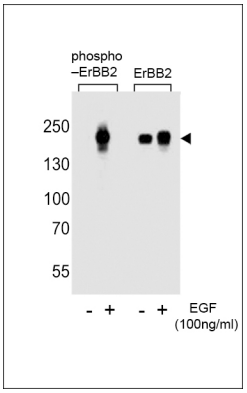
Background

ErbB2 is a member of the epidermal growth factor (EGF) receptor family of receptor tyrosine kinases. This protein has no ligand binding domain of its own and therefore cannot bind growth factors. However, it does bind tightly to other ligand-bound EGF receptor family members to form a heterodimer, stabilizing ligand binding and enhancing kinase-mediated activation of downstream signalling pathways, such as those involving mitogen-activated protein kinase and phosphatidylinositol-3 kinase. Amplification and/or overexpression of this gene has been reported in numerous cancers, including breast and ovarian tumors.

References

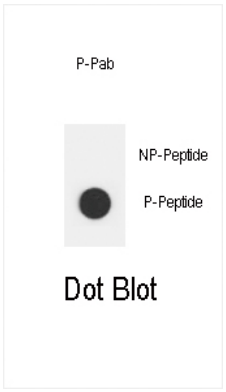
Stephens, P., et al., Nature 431(7008):525-526 (2004). Wang, S.C., et al., Cancer Cell 6(3):251-261 (2004). Menendez, J.A., et al., Proc. Natl. Acad. Sci. U.S.A. 101(29):10715-10720 (2004). M, et al., Anticancer Res. 24(4):2219-2224 (2004). Contreras, D.N., et al., Clin. Appl. Thromb. Hemost. 10(3):271-276 (2004).

Images



Western blot analysis of extracts from A431 cells, untreated or treated with EGF at 100ng/ml, using phospho-ErBB2 (Y1112) (left) or ErBB2 antibody (right).

Dot blot analysis of Phospho-ERBB2-Y1112 Phospho-specific Pab (Cat. #AP3093a) on nitrocellulose membrane. 50ng of Phospho-peptide or Non Phospho-peptide per dot were adsorbed. Antibody working concentrations are 0.6ug per ml.



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