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Phospho-ErbB2(Y1221) Antibody

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AW5222

Product Information

Application	WB
Primary Accession	P04626
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Calculated MW	137910
Isotype	Rabbit IgG
Antigen Source	HUMAN

Additional Information

Gene ID	2064
Antigen Region	1190-1240
Other Names	ERBB2;HER2; MLN19; NEU; NGL; Receptor tyrosine-protein kinase erbB-2; Receptor tyrosine-protein kinase erbB-2; Metastatic lymph node gene 19 protein; Receptor tyrosine-protein kinase erbB-2; Proto-oncogene Neu; Receptor tyrosine-protein kinase erbB-2; Proto-oncogene c-ErbB-2; Receptor tyrosine-protein kinase erbB-2; Tyrosine kinase-type cell surface receptor HER2; Receptor tyrosine-protein kinase erbB-2; p185erbB2; Receptor tyrosine-protein kinase erbB-2; CD_antigen=CD340; Flags: Precursor
Dilution	WB~~1:2000
Target/Specificity	This ERBB2 Antibody is generated from rabbits immunized with a KLH conjugated synthetic phosphopeptide corresponding to amino acid residues surrounding Y1221 of human ERBB2.
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(Y1221) 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

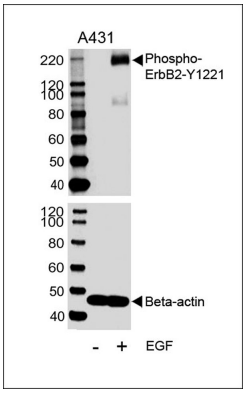
Protein tyrosine kinase that is part of several cell surface receptor complexes, but that apparently needs a coreceptor for ligand binding. Essential component of a neuregulin-receptor complex, although neuregulins do not interact with it alone. GP30 is a potential ligand for this receptor. Regulates 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. In the nucleus is involved in transcriptional regulation. Associates with the 5'-TCAAATTC-3' sequence in the PTGS2/COX-2 promoter and activates its transcription. Implicated in transcriptional activation of CDKN1A; the function involves STAT3 and SRC. Involved in the transcription of rRNA genes by RNA Pol I and enhances protein synthesis and cell growth.

References

Ehsani A., et al. Genomics 15:426-429(1993).
Yamamoto T., et al. Nature 319:230-234(1986).
Coussens L., et al. Science 230:1132-1139(1985).
Wakamatsu A., et al. Submitted (OCT-2007) to the EMBL/GenBank/DDBJ databases.
Mural R.J., et al. Submitted (JUL-2005) to the EMBL/GenBank/DDBJ databases.

Images

Western blot analysis of lysates from A431 cell line,untreated or treated with EGF,using Phospho-ErbB2-Y1221(AW5222)(upper) or Beta-actin (lower).



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