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ERBB2 Antibody(N-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP7629a

Product Information

Application	WB, IHC-P, FC, E
Primary Accession	P04626
Other Accession	P06494, P70424
Reactivity	Mouse, Rat, Human
Predicted	Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	137910
Antigen Region	21-52

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 peptide between 21-52 amino acids from the N-terminal region of human ERBB2.
Dilution	WB~~1:1000 IHC-P~~1:100~500 FC~~1:10~50 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.
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	ERBB2 Antibody(N-term) 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.

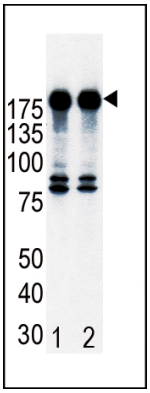
Background

ErbB2, a member of the EGF receptor family, is an essential component of a neuregulin-receptor complex, although neuregulins do not interact with it alone. GP30 is a potential ligand for this receptor. This protein is not activated by EGF, TGF-alpha and amphiregulin. ErbB2 potentially forms a heterodimer with each of the other ERBB receptors. An Interaction with PRKCABP has been suggested. Ligand-binding to this Type I membrane protein may increase phosphorylation on tyrosine residues

References

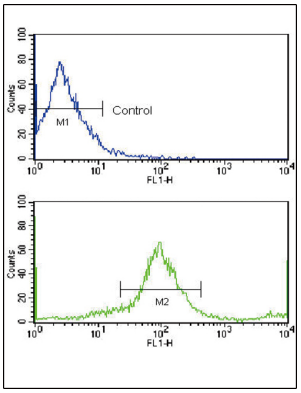
Ehsani, A., et al., Genomics 15(2):426-429 (1993).
Yamamoto, T., et al., Nature 319(6050):230-234 (1986).
Coussens, L., et al., Science 230(4730):1132-1139 (1985).
Semba, K., et al., Proc. Natl. Acad. Sci. U.S.A. 82(19):6497-6501 (1985).

Images

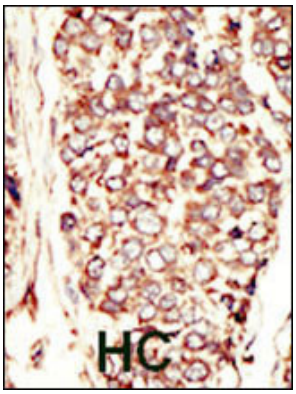


Western blot analysis of ErbB2 (arrow) in T47D cell lysates, either noninduced (Lane 1) or induced with HRG (Lane 2).

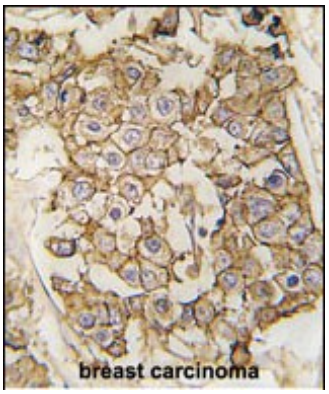
Flow cytometric analysis of MCF-7 cells using HER2/ErbB2 Antibody (N-term) (bottom histogram) compared to a negative control cell (top histogram). FITC-conjugated goat-anti-rabbit secondary antibodies were used for the



analysis.



Formalin-fixed and paraffin-embedded human cancer tissue reacted with the primary antibody, which was peroxidase-conjugated to the secondary antibody, followed by AEC staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated. BC = breast carcinoma; HC = hepatocarcinoma.



Formalin-fixed and paraffin-embedded human breast carcinoma tissue reacted with HER2/ErbB2 antibody (N-term) (Cat.#AP7629a), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.

Citations

- Resistance to receptor-blocking therapies primes tumors as targets for HER3-homing nanobiologics.