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ERBB3 Antibody (N-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP7630a

Product Information

Application	WB, IHC-P, FC, E
Primary Accession	P21860
Reactivity	Human, Rat, Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	148098
Antigen Region	24-55

Additional Information

Gene ID	2065
Other Names	Receptor tyrosine-protein kinase erbB-3, Proto-oncogene-like protein c-ErbB-3, Tyrosine kinase-type cell surface receptor HER3, ERBB3, HER3
Target/Specificity	This ERBB3 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 24-55 amino acids from the N-terminal region of human ERBB3.
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	ERBB3 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	ERBB3
Synonyms	HER3
Function	Tyrosine-protein kinase that plays an essential role as cell surface receptor for neuregulins. Binds to neuregulin-1 (NRG1) and is activated by it;

	ligand-binding increases phosphorylation on tyrosine residues and promotes its association with the p85 subunit of phosphatidylinositol 3-kinase (PubMed:20682778). May also be activated by CSPG5 (PubMed:15358134). Involved in the regulation of myeloid cell differentiation (PubMed:27416908).
Cellular Location	[Isoform 1]: Cell membrane; Single-pass type I membrane protein
Tissue Location	Epithelial tissues and brain.

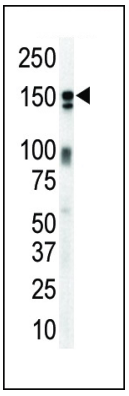
Background

ErbB3, a member of the EGF receptor family, binds and is activated by neuregulins and NTAK. It potentially forms a heterodimer with each of the other ERBB receptors. This protein is predominantly expressed in epithelial tissues and brain. The cytoplasmic part of the receptor may interact with the SH2 or SH3 domains of many signal-transducing proteins. Ligand-binding may increase phosphorylation on tyrosine residues and promote its association with the p85 subunit of phosphatidylinositol 3-kinase ErbB3 is overexpressed in a subset of human mammary tumors.

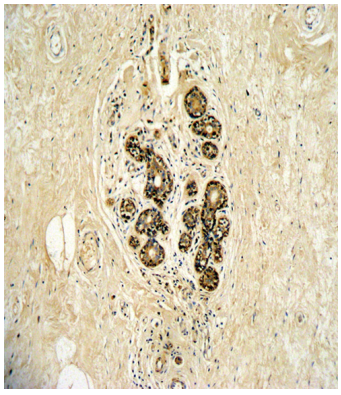
References

Katoh, M., et al., Biochem. Biophys. Res. Commun. 192(3):1189-1197 (1993). Plowman, G.D., et al., Proc. Natl. Acad. Sci. U.S.A. 87(13):4905-4909 (1990). Kraus, M.H., et al., Proc. Natl. Acad. Sci. U.S.A. 86(23):9193-9197 (1989).

Images

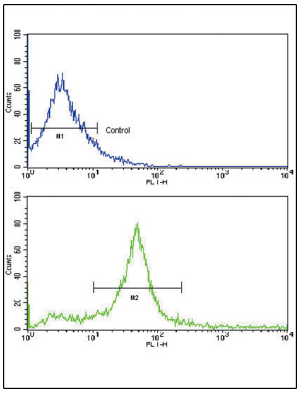


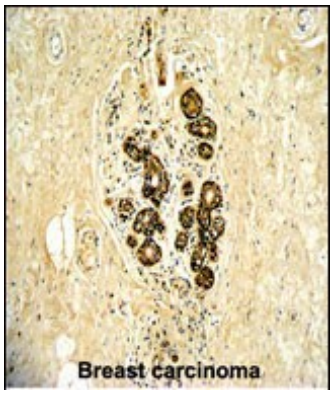
Western blot analysis of anti-ErbB3 Pab (Cat. #AP7630a) in mouse brain lysate. ErbB3 (arrow) was detected using purified Pab. Secondary HRP-anti-rabbit was used for signal visualization with chemiluminescence.



Formalin-fixed and paraffin-embedded human breast carcinoma with ErbB3 Antibody (N-term), 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.

Flow cytometric analysis of 293 cells using ErbB3 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.





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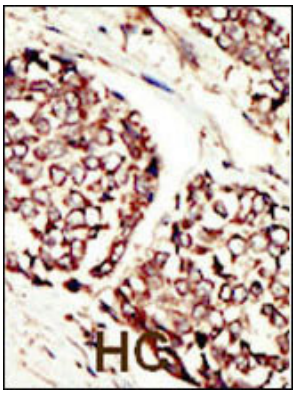

Formalin-fixed and paraffin-embedded human cancer tissue reacted with the primary antibody, which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated. BC = breast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

Citations

- High incidence of ErbB3, ErbB4, and MET expression in ovarian cancer.
- Charcot-Marie-Tooth disease-linked protein SIMPLE functions with the ESCRT machinery in endosomal trafficking.
- Preventive effects of heregulin-beta1 on macrophage foam cell formation and atherosclerosis.
- Neuregulin1-induced cell migration is impaired in schizophrenia: association with neuregulin1 and catechol-o-methyltransferase gene polymorphisms.