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Mouse Erbb2 Antibody (P1142)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP20907a

Product Information

Application	WB, E
Primary Accession	P70424
Reactivity	Rat, Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB50280
Calculated MW	138579

Additional Information

Gene ID	13866
Other Names	Receptor tyrosine-protein kinase erbB-2, Proto-oncogene Neu, Proto-oncogene c-ErbB-2, p185erbB2, CD340, Erbb2, Kiaa3023, Neu
Target/Specificity	This Mouse Erbb2 antibody is generated from a rabbit immunized with a KLH conjugated synthetic peptide between 1142-1176 amino acids from the human region of Mouse Erbb2.
Dilution	WB~~1:1000 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	Mouse Erbb2 Antibody (P1142) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	Erbb2
Synonyms	Kiaa3023, Neu
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 (By similarity).
Cellular Location	Cell membrane {ECO:0000250|UniProtKB:P04626}; Single-pass type I membrane protein {ECO:0000250|UniProtKB:P04626} Cell projection, ruffle membrane {ECO:0000250|UniProtKB:P04626}; Single-pass type I membrane protein {ECO:0000250|UniProtKB:P04626} Early endosome {ECO:0000250|UniProtKB:P04626}. Cytoplasm, perinuclear region {ECO:0000250|UniProtKB:P04626}. Nucleus {ECO:0000250|UniProtKB:P04626}. Note=Translocation to the nucleus requires endocytosis, probably endosomal sorting and is mediated by importin beta-1/KPNB1. Also detected in endosome-to-TGN retrograde vesicles. Internalized from the cell membrane in response to EGF stimulation. {ECO:0000250|UniProtKB:P04626}
Tissue Location	Expressed predominantly in uterine epithelial cells. In the muscle, expression localizes to the synaptic sites of muscle fibers

Background

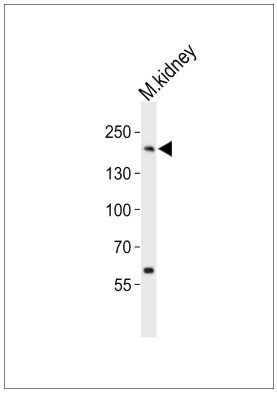
Protein tyrosine kinase that is part of several cell surface receptor complexes, but that apparently needs a coreceptor for ligand binding. Essential component of a neuregulin-receptor complex, although neuregulins do not interact with it alone. GP30 is a potential ligand for this receptor. Regulates 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 (By similarity).

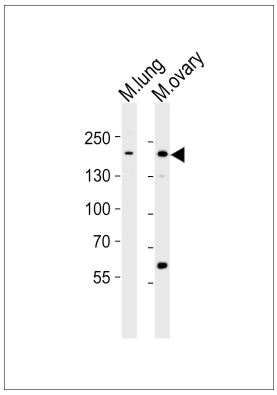
References

Okazaki N.,et al.DNA Res. 10:167-180(2003).
Lim J.,et al.Endocrinology 138:1328-1337(1997).
Moscoso L.M.,et al.Dev. Biol. 172:158-169(1995).
Muthuswamy S.K.,et al.Oncogene 11:271-279(1995).
Jaulin-Bastard F.,et al.J. Biol. Chem. 276:15256-15263(2001).

Images

Western blot analysis of lysate from mouse kidney tissue lysate, using Erbb2 Antibody (P1142)(Cat. #AP20907a). AP20907a was diluted at 1:500. A goat anti-rabbit IgG H&L(HRP) at 1:10000 dilution was used as the secondary antibody. Lysate at 20ug.





Western blot analysis of lysates from mouse lung, mouse ovary tissue lysate (from left to right), using Erbb2 Antibody (P1142)(Cat. #AP20907a). AP20907a was diluted at 1:1000 at each lane. A goat anti-rabbit IgG H&L(HRP) at 1:10000 dilution was used as the secondary antibody. Lysates at 20ug per lane.