

Phospho-mouse ERBB2(S1114) Blocking Peptide
Synthetic peptide
Catalog # BP3850a**Specification**

Phospho-mouse ERBB2(S1114) Blocking Peptide - Product Information

Primary Accession [P70424](#)
Other Accession [P06494](#), [NP_001003817.1](#)

Phospho-mouse ERBB2(S1114) Blocking Peptide - 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

The synthetic peptide sequence is selected from aa 1107-1120 of MOUSE Erbb2

Format

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

Phospho-mouse ERBB2(S1114) Blocking Peptide - 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

Phospho-mouse ERBB2(S1114) Blocking Peptide - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Blocking Peptides](#)

Phospho-mouse ERBB2(S1114) Blocking Peptide - Images

Phospho-mouse ERBB2(S1114) Blocking Peptide - Background

This gene encodes 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. Allelic variations at amino acid positions 654 and 655 of isoform a (positions 624 and 625 of isoform b) have been reported, with the most common allele, Ile654/Ile655, shown here. Amplification and/or overexpression of this gene has been reported in numerous cancers, including breast and ovarian tumors. Alternative splicing results in several additional transcript variants, some encoding different isoforms and others that have not been fully characterized.

Phospho-mouse ERBB2(S1114) Blocking Peptide - References

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Johnson, E., et al. J. Biol. Chem. 285(38):29491-29501(2010)
Huck, L., et al. Proc. Natl. Acad. Sci. U.S.A. 107(35):15559-15564(2010)
Chuang, T.D., et al. J. Biol. Chem. 285(31):23598-23606(2010)
Simeone, L., et al. J. Neurosci. 30(19):6620-6634(2010)