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Phospho-ErbB2(Y1221) Blocking Peptide

Synthetic peptide
Catalog # BP3901a

Specification

Phospho-ErbB2(Y1221) Blocking Peptide - Product Information

Primary Accession P04626

Phospho-ErbB2(Y1221) Blocking Peptide - 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
The synthetic peptide sequence is selected from aa 1200-1240 of Human 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-ErbB2(Y1221) Blocking Peptide - 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.

Phospho-ErbB2(Y1221) Blocking Peptide - Protocols

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

- Blocking Peptides

Phospho-ErbB2(Y1221) Blocking Peptide - Images

Phospho-ErbB2(Y1221) Blocking Peptide - Background

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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.

Phospho-ErbB2(Y1221) Blocking Peptide - 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.