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Phospho-ErbB2-Y871 Antibody Blocking Peptide
Synthetic peptide
Catalog # BP3095a

Specification

Phospho-ErbB2-Y871 Antibody Blocking Peptide - Product Information

Primary Accession P04626

Phospho-ErbB2-Y871 Antibody 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 used to generate the antibody AP3095a was selected from the region of human Phospho-ErbB2-Y871. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

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-Y871 Antibody 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-Y871 Antibody Blocking Peptide - Protocols

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

- Blocking Peptides

Phospho-ErbB2-Y871 Antibody Blocking Peptide - Images

Phospho-ErbB2-Y871 Antibody Blocking Peptide - Background

ErbB2 is 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. Amplification and/or overexpression of this gene has been reported in numerous cancers, including breast and ovarian tumors.

Phospho-ErbB2-Y871 Antibody Blocking Peptide - References

Provinciali, M., et al., Int. J. Cancer 115(1):36-45 (2005).Yee, L.D., et al., J. Nutr. 135(5):983-988 (2005).Beckers, J., et al., Int. J. Cancer 114(4):590-597 (2005).Brandt, B., et al., Biochem. Biophys. Res. Commun. 329(1):318-323 (2005).Ghatak, S., et al., J. Biol. Chem. 280(10):8875-8883 (2005).