

Phospho-ERBB2(S1051) Blocking Peptide
Synthetic peptide
Catalog # BP3843a**Specification****Phospho-ERBB2(S1051) Blocking Peptide -
Product Information**

Primary Accession [P04626](#)
Other Accession [NP_001005862.1](#)

**Phospho-ERBB2(S1051) 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 1044-1056 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(S1051) Blocking Peptide -
Protein Information**

Name ERBB2

Synonyms HER2, MLN19, NEU, NGL

**Phospho-ERBB2(S1051) 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-ERBB2(S1051) Blocking Peptide -
References**

Geradts, J., et al. Cancer Invest.
28(9):969-977(2010)
Zaoui, K., et al. Proc. Natl. Acad. Sci. U.S.A.
107(43):18517-18522(2010)
Oliveras, G., et al. Ann. N. Y. Acad. Sci. 1210,
86-92 (2010) :
Han, J.S., et al. Anticancer Res.
30(9):3407-3412(2010)
Stackievicz, R., et al. Isr. Med. Assoc. J.
12(5):290-295(2010)

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

[Isoform 1]: Cell membrane; Single-pass type I membrane protein Early endosome. Cytoplasm, perinuclear region. Nucleus. Note=Translocation to the nucleus requires endocytosis, probably endosomal sorting and is mediated by importin beta-1/KPNB1. Also detected in VPS35-positive endosome-to-TGN retrograde vesicles (PubMed:31138794). [Isoform 3]: 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(S1051) Blocking Peptide - Protocols

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

- [Blocking Peptides](#)