

EGFR Blocking Peptide (Y998)
Synthetic peptide
Catalog # BP7628t**Specification****EGFR Blocking Peptide (Y998) - Product Information**

Primary Accession [P00533](#)
Other Accession [Q01279](#)

EGFR Blocking Peptide (Y998) - Additional Information

Gene ID 1956

Other Names

Epidermal growth factor receptor,
Proto-oncogene c-ErbB-1, Receptor
tyrosine-protein kinase erbB-1, EGFR, ERBB,
ERBB1, HER1

Target/Specificity

The synthetic peptide sequence is selected
from aa 991-1005 of HUMAN EGFR

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.

EGFR Blocking Peptide (Y998) - Protein Information

Name EGFR ([HGNC:3236](#))

Synonyms ERBB, ERBB1, HER1

Function

Receptor tyrosine kinase binding ligands of

EGFR Blocking Peptide (Y998) - Background

The epidermal growth factor receptor is the
cell-surface receptor for members of the
epidermal growth factor family (EGF-family) of
extracellular protein ligands. The epidermal
growth factor receptor is a member of the ErbB
family of receptors, a subfamily of four closely
related receptor tyrosine kinases: EGFR
(ErbB-1), HER2/c-neu (ErbB-2), Her 3 (ErbB-3)
and Her 4 (ErbB-4). Mutations affecting EGFR
expression or activity could result in cancer.

EGFR Blocking Peptide (Y998) - References

Zanardi, T.A., et al., J. Virol.
77(21):11685-11696 (2003).
Krug, A.W., et al., J. Biol. Chem.
278(44):43060-43066 (2003).
Huang, F., et al., J. Biol. Chem.
278(44):43411-43417 (2003).
He, Y.Y., et al., J. Biol. Chem.
278(43):42457-42465 (2003).
Hirsch, F.R., et al., J. Clin. Oncol.
21(20):3798-3807 (2003).

the EGF family and activating several signaling cascades to convert extracellular cues into appropriate cellular responses (PubMed:2790960, PubMed:10805725, PubMed:27153536). Known ligands include EGF, TGFA/TGF-alpha, AREG, epigen/EPGN, BTC/betacellulin, epiregulin/EREG and HBEGF/heparin-binding EGF (PubMed:2790960, PubMed:7679104, PubMed:8144591, PubMed:9419975, PubMed:15611079, PubMed:12297049, PubMed:27153536, PubMed:20837704, PubMed:17909029). Ligand binding triggers receptor homo- and/or heterodimerization and autophosphorylation on key cytoplasmic residues. The phosphorylated receptor recruits adapter proteins like GRB2 which in turn activates complex downstream signaling cascades. Activates at least 4 major downstream signaling cascades including the RAS-RAF-MEK-ERK, PI3 kinase-AKT, PLCgamma-PKC and STATs modules (PubMed:27153536). May also activate the NF-kappa-B signaling cascade (PubMed:<a href="http://www.uniprot.org/c

itations/11116146" target="_blank">11116146). Also directly phosphorylates other proteins like RGS16, activating its GTPase activity and probably coupling the EGF receptor signaling to the G protein-coupled receptor signaling (PubMed:11602604). Also phosphorylates MUC1 and increases its interaction with SRC and CTNNB1/beta-catenin (PubMed:11483589). Positively regulates cell migration via interaction with CCDC88A/GIV which retains EGFR at the cell membrane following ligand stimulation, promoting EGFR signaling which triggers cell migration (PubMed:20462955). Plays a role in enhancing learning and memory performance (By similarity).

Cellular Location

Cell membrane; Single-pass type I membrane protein. Endoplasmic reticulum membrane; Single-pass type I membrane protein. Golgi apparatus membrane; Single-pass type I membrane protein. Nucleus membrane; Single-pass type I membrane protein Endosome Endosome membrane. Nucleus. Note=In response to EGF, translocated from the cell membrane to the nucleus via Golgi and ER (PubMed:20674546, PubMed:17909029). Endocytosed upon activation by ligand (PubMed:2790960, PubMed:17182860, PubMed:27153536, PubMed:17909029). Colocalized with GPER1 in the nucleus of estrogen agonist-induced cancer-associated fibroblasts (CAF) (PubMed:20551055)

Tissue Location

Ubiquitously expressed. Isoform 2 is also expressed in ovarian cancers.

EGFR Blocking Peptide (Y998) - Protocols

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

- [Blocking Peptides](#)