

EGFR-S1026 Blocking Peptide (C-term)

Synthetic peptide

Catalog # BP5436a

Specification

EGFR-S1026 Blocking Peptide (C-term) - Product Information

Primary Accession

[P00533](#)

Other Accession

[NP_958440.1](#), [NP_005219.2](#)**EGFR-S1026 Blocking Peptide (C-term) - 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 1019-1033 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-S1026 Blocking Peptide (C-term) - Protein Information**Name** EGFR ([HGNC:3236](#))**Synonyms** ERBB, ERBB1, HER1**Function**

Receptor tyrosine kinase binding ligands of the EGF family and activating several signaling cascades to convert extracellular cues into appropriate cellular responses (PubMed:10805725, PubMed:27153536, PubMed:2790960, PubMed:35538033). Known ligands include EGF, TGFA/TGF- alpha, AREG, epigen/EPGN, BTC/betacellulin, epiregulin/EREG and HBEGF/heparin-binding EGF (PubMed:12297049, PubMed:15611079, PubMed:17909029, PubMed:20837704).

target="_blank">20837704, PubMed:27153536, PubMed:2790960, PubMed:7679104, PubMed:8144591, PubMed:9419975). 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:11116146). Also directly phosphorylates other proteins like RGS16, activating its GTPase activity and probably coupling the EGFR 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 CDC88A/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). Plays a role in mammalian pain signaling (long-lasting hypersensitivity) (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:17909029, PubMed:20674546). Endocytosed upon activation by ligand (PubMed:17182860, PubMed:17909029, PubMed:27153536, PubMed:2790960). 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-S1026 Blocking Peptide (C-term) - Protocols

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

- [Blocking Peptides](#)

EGFR-S1026 Blocking Peptide (C-term) - Images

EGFR-S1026 Blocking Peptide (C-term) - Background

The protein encoded by this gene is a transmembrane glycoprotein that is a member of the protein kinase superfamily. This protein is a receptor for members of the epidermal growth factor family. EGFR is a cell surface protein that binds to epidermal growth factor. Binding of the protein to a ligand induces receptor dimerization and tyrosine autophosphorylation and leads to cell proliferation. Mutations in this gene are associated with lung cancer.

EGFR-S1026 Blocking Peptide (C-term) - References

Perez, C.A., et al. J. Urol. 183(5):2062-2069(2010)
Koumakpayi, I.H., et al. Br. J. Cancer 102(7):1163-1173(2010)
Cortot, A.B., et al. Cancer (2010) In press :
Lee, Y.J., et al. J. Cancer Res. Clin. Oncol. (2010) In press :
Kawahara, A., et al. Hum. Pathol. (2010) In press :
Wu, S.L., et al. Mol. Cell Proteomics 5(9):1610-1627(2006)
Wu, S.L., et al. J. Proteome Res. 4(4):1155-1170(2005)
Abe, Y., et al. J. Biol. Chem. 273(18):11150-11157(1998)
Li, W., et al. Mol. Cell. Biol. 12(12):5824-5833(1992)
Krieg, J., et al. J. Biol. Chem. 267(27):19258-19265(1992)
Lowenstein, E.J., et al. Cell 70(3):431-442(1992)
Chi, D.D., et al. Hum. Mol. Genet. 1 (2), 135 (1992) :
Countaway, J.L., et al. J. Biol. Chem. 267(2):1129-1140(1992)