

**Mouse Egfr Blocking Peptide (P1116)**

Synthetic peptide

Catalog # BP20926a

**Specification**

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**Mouse Egfr Blocking Peptide (P1116) - Product Information**

Primary Accession

[Q01279](#)**Mouse Egfr Blocking Peptide (P1116) - Additional Information**

Gene ID 13649

**Other Names**

Epidermal growth factor receptor, Egfr

**Target/Specificity**

The synthetic peptide sequence is selected from aa 1116-1150 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.

**Mouse Egfr Blocking Peptide (P1116) - Protein Information**

Name Egfr {ECO:0000312|MGI:MGI:95294}

**Function**

Receptor tyrosine kinase binding ligands of the EGF family and activating several signaling cascades to convert extracellular cues into appropriate cellular responses (PubMed:<a href="http://www.uniprot.org/citations/8404850" target="\_blank">8404850</a>). Known ligands include EGF, TGFA/TGF-alpha, AREG, epigen/EPGN, BTC/betacellulin, epiregulin/EREG and HBEGF/heparin-binding EGF. 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. May also activate the NF-kappa-B signaling cascade. 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. Also phosphorylates MUC1 and increases its interaction with SRC and CTNNB1/beta-catenin (By similarity). 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 (By similarity). Plays a role in enhancing learning and memory performance (PubMed:<a

href="http://www.uniprot.org/citations/20639532" target="\_blank">20639532</a>). Plays a role in mammalian pain signaling (long- lasting hypersensitivity) (PubMed:<a href="http://www.uniprot.org/citations/35131940" target="\_blank">35131940</a>).

#### **Cellular Location**

Cell membrane {ECO:0000250|UniProtKB:P00533}; Single-pass type I membrane protein {ECO:0000250|UniProtKB:P00533}; Endoplasmic reticulum membrane {ECO:0000250|UniProtKB:P00533}; Single- pass type I membrane protein {ECO:0000250|UniProtKB:P00533}; Golgi apparatus membrane {ECO:0000250|UniProtKB:P00533}; Single-pass type I membrane protein {ECO:0000250|UniProtKB:P00533}; Nucleus membrane {ECO:0000250|UniProtKB:P00533}; Single-pass type I membrane protein {ECO:0000250|UniProtKB:P00533}. Endosome {ECO:0000250|UniProtKB:P00533}. Endosome membrane {ECO:0000250|UniProtKB:P00533}. Nucleus {ECO:0000250|UniProtKB:P00533} Note=In response to EGF, translocated from the cell membrane to the nucleus via Golgi and ER. Endocytosed upon activation by ligand Colocalized with GPER1 in the nucleus of estrogen agonist-induced cancer-associated fibroblasts (CAF). {ECO:0000250|UniProtKB:P00533}

#### **Mouse Egfr Blocking Peptide (P1116) - Protocols**

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

- [Blocking Peptides](#)

#### **Mouse Egfr Blocking Peptide (P1116) - Images**

#### **Mouse Egfr Blocking Peptide (P1116) - Background**

Receptor tyrosine kinase binding ligands of the EGF family and activating several signaling cascades to convert extracellular cues into appropriate cellular responses. Known ligands include EGF, TGFA/TGF-alpha, amphiregulin, epigen/EPGN, BTC/betacellulin, epiregulin/EREG and HBEGF/heparin-binding EGF. 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. May also activate the NF-kappa-B signaling cascade. 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. Also phosphorylates MUC1 and increases its interaction with SRC and CTNNB1/beta-catenin.

#### **Mouse Egfr Blocking Peptide (P1116) - References**

Avivi A.,et al.Oncogene 7:1957-1962(1992).  
Paria B.C.,et al.Proc. Natl. Acad. Sci. U.S.A. 90:55-59(1993).  
Hibbs M.L.,et al.Submitted (APR-1994) to the EMBL/GenBank/DDBJ databases.  
Luetke N.C.,et al.Genes Dev. 8:399-413(1994).  
Avivi A.,et al.Oncogene 6:673-676(1991).