MOUSE EGFR PROTEIN, HIS TAG

Cat.#: 12186

Product Name: Mouse EGFR Protein

Size : 10 μg, 50 μg and 100 μg

Synonyms: Epidermal growth factor receptor;Egfr

Target: EGFR

UNIPROT ID: Q01279

Description: Recombinant mouse EGFR protein with C-terminal 6xHis tag

Background: Receptor tyrosine kinase binding ligands of the EGF family and activating several signaling cascades to convert extracellular cues into appropriate cellular responses (PubMed:8404850). 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). Plays a role in enhancing learning and memory performance (PubMed:20639532).[UniProtKB/Swiss-Prot Function]

Species/Host: HEK293

Molecular Weight: The protein has a predicted molecular mass of 70.1kDa after removal of the signal peptide. The apparent molecular mass of mEGFR-His is approximately 100-130 kDa due to glycosylation.

Molecular Characterization: Mouse EGFR(Leu25-Ser647) 6×His tag

Purity: The purity of the protein is greater than 85% as determined by SDS-PAGE and Coomassie blue staining.

Formulation & Reconstitution: Lyophilized from nanodisc solubilization buffer (20 mM Tris-HCl, 150 mM NaCl, pH 8.0). Normally 5% – 8% trehalose is added as protectants before lyophilization.

Storage & Shipping: Store at -20°C to -80°C for 12 months in lyophilized form. After reconstitution, if not intended for use within a month, aliquot and store at -80°C (Avoid repeated freezing and thawing). Lyophilized proteins are shipped at ambient temperature.

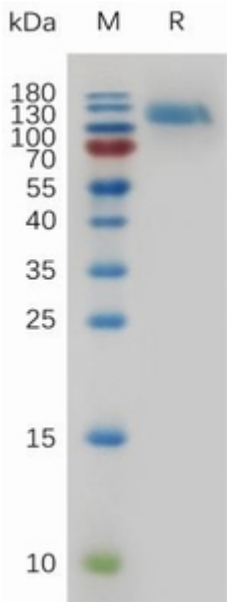

Figure 1. Mouse EGFR Protein, His Tag on SDS-PAGE under reducing condition.