

PRODUCT INFORMATION

Target	EGFR
Synonyms	Epidermal growth factor receptor;Egfr
Description	Recombinant mouse EGFR protein with C-terminal 6×His tag
Delivery	In Stock
Uniprot ID	Q01279
Expression Host	HEK293
Tag	C-6×His Tag
Molecular Characterization	Mouse EGFR(Leu25-Ser647) 6×His tag
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.
Purity	The purity of the protein is greater than 85% as determined by SDS-PAGE and Coomassie blue staining.
Formulation & Reconstitution	Lyophilized from sterile PBS, pH 7.4. Normally 5 % - 8% trehalose is added as protectants before lyophilization. Please see Certificate of Analysis for specific instructions of reconstitution.
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.
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]
Usage	Research use only
Conjugate	Unconjugated



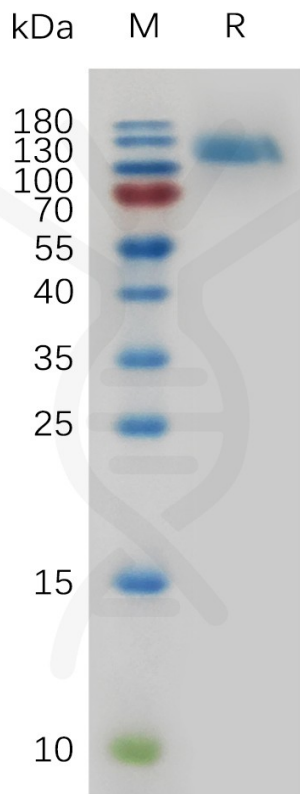


Figure 1. Mouse EGFR Protein, His Tag on SDS-PAGE under reducing condition.

