EGFR Protein, Human (621a.a, HEK293, N-His, C-Myc)

Cat. No.:	HY-P700409
Synonyms:	Epidermal growth factor receptor; EGFR; ERBB; ERBB1; HER1
Species:	Human
Source:	HEK293
Accession:	P00533 (L25-S645)
Gene ID:	1956
Molecular Weight:	73.6 kDa

PROPERTIES

AA Sequence

L E E K K V C Q G T S N K L T Q L G T F E D H F L S L Q R M F N N C E V V L G N
L E I T Y V Q R N Y D L S F L K T I Q E V A G Y V L I A L N T V E R I P L E N L
Q I I R G N M Y Y E N S Y A L A V L S N Y D A N K T G L K E L P M R N L Q E I L
H G A V R F S N N P A L C N V E S I Q W R D I V S S D F L S N M S M D F Q N H L
G S C Q K C D P S C P N G S C W G A G E E N C Q K L T K I I C A Q Q C S G R C R
G K S P S D C C H N Q C A A G C T G P R E S D C L V C R K F R D E A T C K D T C
P P L M L Y N P T T Y Q M D V N P E G K Y S F G A T C V K K C P R N Y V V T D H
G S C V R A C G A D S Y E M E E D G V R K C K K C E G P C R K V C N G I G I G E
F K D S L S I N A T N I K H F K N C T S I S G D L H I L P V A F R G D S F T H T
P P L D P Q E L D I L K T V K E I T G F L L I Q A W P E N R T D L H A F E N L E
I I R G R T K Q H G Q F S L A V V S L N I T S L G L R S L K E I S D G D V I I S
G N K N L C Y A N T I N W K K L F G T S G Q K T K I I S N R G E N S C K A T G Q
V C H A L C S P E G C W G P E P R D C V S C R N V S R G R E C V D K C N L L E G
E P R E F V E N S E C I Q C H P E C L P Q A M N I T C T G R G P D N C I Q C A H
Y I D G P H C V K T C P A G V M G E N N T L V W K Y A D A G H V C H L C H P N C
T Y G C T G P G L E G C P T N G P K I P S

Biological Activity	The enzyme activity of this recombinant protein is testing in progress, we cannot offer a guarantee yet.
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 μm filtered solution of 20 mM Tris-HCl, 0.5 M NaCl, 6% Trehalose, pH 8.0
Endotoxin Level	<1 EU/μg, determined by LAL method.
Reconsititution	It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH_2O.
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background	The EGFR protein, a receptor tyrosine kinase, binds ligands of the EGF family, including EGF, TGFA/TGF-alpha, AREG, epigen/EPGN, BTC/betacellulin, epiregulin/EREG, and HBEGF/heparin-binding EGF. This interaction initiates cascades that convert extracellular signals into cellular responses, involving receptor homo- and/or heterodimerization and autophosphorylation on key cytoplasmic residues. The phosphorylated receptor recruits adapter proteins like GRB2, activating downstream signaling cascades, including RAS-RAF-MEK-ERK, PI3 kinase-AKT, PLCgamma-PKC, and STATs modules. Additionally, EGFR may trigger the NF-kappa-B signaling cascade and directly phosphorylate proteins like RGS16, activating its GTPase activity, potentially linking EGF receptor signaling to G protein-coupled receptor signaling. Furthermore, EGFR phosphorylates MUC1, enhancing its interaction with SRC and CTNNB1/beta-catenin. It positively regulates cell migration through interaction with CCDC88A/GIV, retaining EGFR at the cell membrane post-ligand stimulation, thereby promoting EGFR signaling and triggering cell migration. Beyond its canonical functions, EGFR contributes to enhancing learning and memory performance and plays a role in mammalian pain signaling, with isoform 2 potentially acting as an antagonist to EGF action.

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com
Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA