
Product Data Sheet

Product Name: EGFR Human, CHO

Cat. No.: GP22487

Batch No.: 1

Product Data

Purity >98% Source Chinese Hamster Ovary cells.

Physical Appearance solid Shipping Condition Shipped with Ice Packs.

Synonyms Epidermal Growth Factor Receptor; Receptor Tyrosine-Protein Kinase ErbB-1; Erb-B2 Receptor Tyrosine Kinase; Proto-Oncogene C-ErbB-1; EC 2.7.10.1; ERBB1; ERBB; HER1; Epidermal Growth Factor Receptor (Avian Erythroblastic Leukemia Viral (V-Erb-B) Oncogene Homolog); Erythroblastic Leukemia Viral (V-Erb-B) Oncogene Homolog (Avian); Avian Erythroblastic Leukemia Viral (V-Erb-B) Oncogene Homolog; Cell Proliferation-Inducing Protein 61; Cell Growth Inhibiting Protein 40; EC 2.7.10; NISBD2; PIG61; MENA.

Amino Acid Sequence LEEKKVCQGT SNKLTQLGTF EDHFLSLQRM FNNCEVVLGN LEITYVQRNY
DLSFLKTIQE VAGYVLIALN TVERIPLNENL QIIRGNMYYE NSYALAVLSN
YDANKTGLKE LPMRNLQEIL HGAVRFSNNP ALCNVESIQW RDIVSSDFLS
NMSMDFQ NHL GSCQKCDPSC PNGSCWGAGE ENCQKLT KII CAQQCSGR CR
GKSPSDCCHN QCAAGCTGPR ESDCLVCRKF RDEATCKDTC PPLMLYNPTT
YQMDVNPEGK YSFGATCVKK CPRNYVVDH GSCVRACGAD SYEMEEDGVR
KCKKCEGPCR KVCNGIGIGE FKDSL SINAT NIKHFKNCTS ISGDLHILPV
AFRGDSFTHT PPLDPQELDI LKTVKEITGF LLIQAWPENR TDLHAFENLE
IIRGR TKQHG QFSLAVVSLN ITSLGLRSLK EISDGDVIIS GNKNLCYANT
INWKKLFGTS GQKTKIISNR GENSCKATGQ VCHALCSPEG CWGPEPRDCV
SCRNVSRGRE CVDKCNLLEG EPREFVENSE CIQCHPECLP QAMNITCTGR
GPDNCIQCAH YIDGPHCVKT CPAGVMGENN TLVWKYADAG HVCHLCHPNC
TYGCTGPGLE GCPTNGPKIP SRSPKSCDKT HTCPCPAPE LLGGPSVFLF
PPKPKDTLMI SRTPEVTCVV VDVSHEDPEV KFNWYVDGVE VHNAKTKPRE
EQYNSTYRVV SVLTVLHQDW LNGKEYKCKV SNKALPAPIE KTISKAKGQP
REPQVYTLPP SRDELTKNQV SLTCLVKG FY PSDIAVEWES NGQPENNYKT
TPPVLDS DGS FFLYSKLTVD KSRWQQGNVF SCSVMHEALH NHYTQKSLSL
SPGKHHHHHH.

Caution: Product has not been fully validated for medical applications. For research use only.

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Formulation EGFR protein solution (0.25mg/ml) contains Phosphate Buffered Saline (pH 7.4) and 10% glycerol.

Introduction

The epidermal growth factor receptor(EGF R) subfamily of receptor tyrosine kinases comprises four members: EGF R(also known as HER1, ErbB1 or ErbB), ErbB2 (Neu, HER-2), ErbB3 (HER-3), and ErbB4 (HER-4). All family members are type I transmembrane glycoprotein that has an extracellular domain which contains two cysteine-rich domains separated by a spacer region that is involved in ligand-binding, and a cytoplasmic domain which has a membrane-proximal tyrosine kinase domain and a C-terminal tail with multiple tyrosine autophosphorylation sites. The human EGF R gene encodes a 1210 amino acid (aa) residue precursor with a 24 aa putative signal peptide, a 621 aa extracellular domain, a 23 aa transmembrane domain, and a 542 aa cytoplasmic domain. EGF R has been shown to bind a subset of the EGF family ligands, including EGF, amphiregulin, TGF α , betacellulin, epiregulin, heparin-binding EGF and neuregulin-2 in the absence of a co-receptor. Ligand binding induces EGF R homodimerization as well as

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heterdimerization with ErbB2, resulting in kinase activation, tyrosine phosphorylation and cell signaling. EGF R can also be recruited to form heterodimers with the ligand-activated ErbB3 or ErbB4. EGF R signaling has been shown to regulate multiple biological functions including cell proliferation, differentiation, motility and apoptosis. In addition, EGF R signaling has also been shown to play a role in carcinogenesis.

Stability

Store at 4°C if entire vial will be used within 2-4 weeks. Store, frozen at -20°C for longer periods of time. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Avoid multiple freeze-thaw cycles.

Background

EGFR produced in CHO cells is a single, glycosylated polypeptide chain containing 860 amino acids (25-645 a.a.) and having a molecular mass of 95.5 kDa (Migrates at 100-150 on SDS-PAGE under reducing conditions). EGFR is expressed with a 239 amino acid hIgG-His tag at C-Terminus and purified by proprietary chromatographic techniques.

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