Product Data Sheet

Product Name:	EGFR Human Sf9
Cat. No.:	GP22485
Batch No.:	1

Product Data

Purity	>98%	Source	Sf9 Insect Cells.
Phycical Appearance	solid	Shipping Condition	Shipped at Room temp.
Synonyms	Epidermal growth factor receptor; EC 2.7.10.1; Receptor tyrosine-protein kinase ErbB-1; ERBB; mENA; ERBB1; EGFR.		
Amino Acid Sequence	LEEKKV CQGTSNKLTQ LGTFEDHFLS LQRMFNNCEV VLGNLEITYV QRNYDLSFLK TIQEVAGYVL IALNTVERIP LENLQIIRGN MYYENSYALA VLSNYDANKT GLKELPMRNL QEILHGAVRF SNNPALCNVE SIQWRDIVSS DFLSNMSMDF QNHLGSCQKC DPSCPNGSCW GAGEENCQKL TKIICAQQCS GRCRGKSPSD CCHNQCAAGC TGPRESDCLV CRKFRDEATC KDTCPPLMLY NPTTYQMDVN PEGKYSFGAT CVKKCPRNYV VTDHGSCVRA CGADSYEMEE DGVRKCKKCE GPCRKVCNGI GIGEFKDSLS INATNIKHFK NCTSISGDLH ILPVAFRGDS FTHTPPLDPQ ELDILKTVKE ITGFLLIQAW PENRTDLHAF ENLEIIRGRT KQHGQFSLAV VSLNITSLGL RSLKEISDGD VIISGNKNLC YANTINWKKL FGTSGQKTKI ISNRGENSCK ATGQVCHALC SPEGCWGPEP RDCVSCRNVS RGRECVDKCK LLEGEPREFV ENSECIQCHP ECLPQAMNIT CTGRGPDNCI QCAHYIDGPH CVKTCPAGVM GENNTLVWKY ADAGHVCHLC HPNCTYGCTG PGLEGCPTNG PKIPSIAASW SHPQFEK.		
Solubility	It is recommended to reconstitute the lyophilized EGFR in sterile PBS not less than 100µg/ml, which can then be further diluted to other aqueous solutions.		
Formulation	ErbB1 was lyophilized from a concentrated (1mg/ml) sterile solution containing 1x PBS pH-7.4.		

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

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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-a , betacellulin, epiregulin, HBEGFand neuregulin-2 in the absence of a co-receptor. Ligand binding induces EGF R homodimerization as well as 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

Lyophilized EGFR although stable at room temperature for 3 weeks, should be stored desiccated below -18°C . Upon reconstitution EGFR should be stored at 4°C between 2-7 days and for future use below -18°C .For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA).Please prevent freeze-thaw cycles.

Background

The EGFR contains the extracellular domain of the human EGFR (25-647 a.a.) excluding the signal peptide which is cleaved by the insect cells having an approximate Mw of 85kDa. The EGFR is fused to a C-terminal Strep-tag and purified by proprietary chromatographic techniques.