



## Product Datasheet

<b>Product Name</b>	Epidermal Growth Factor Receptor Sf9 Human Recombinant
<b>Cata No</b>	CB500899
<b>Source</b>	<i>Sf9 Insect Cells</i>
<b>Synonyms</b>	Epidermal growth factor receptor, EC 2.7.10.1, Receptor tyrosine-protein kinase ErbB-1, ERBB, mENA, ERBB1, EGFR.

### Description

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- $\alpha$ , betacellulin, epiregulin, heparin-binding EGF and neuregulin-2 in the absence of a co-receptor. Ligand binding induces EGF R homodimerization as well as heterodimerization 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.

Soluble EGFR Human Recombinant produced in baculovirus is a monomeric, glycosylated, Polypeptide chain and having a molecular mass of 80 kDa.

The EGFR is purified by proprietary chromatographic techniques.

### Physical Appearance

Sterile Filtered White lyophilized (freeze-dried) powder.

### Purity

Greater than 80.0% as determined by:  
(a) Analysis by RP-HPLC.  
(b) Analysis by SDS-PAGE.

### Formulation

ErbB1 was lyophilized from a concentrated (1mg/ml) sterile solution containing 1x PBS pH-7.4

### Reconstitution

It is recommended to reconstitute the lyophilized EGFR in sterile PBS not less than 100 $\mu$ g/ml, which can then be further diluted to other aqueous solutions.

### Stability

Lyophilized EGFR although stable at room temperature for 3 weeks, should be stored desiccated below -18 $^{\circ}$ C. Upon reconstitution EGFR should be stored at 4 $^{\circ}$ C between 2-7 days and for future use below -18 $^{\circ}$ C.

For long term storage it is recommended to add a

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carrier protein (0.1% HSA or BSA).

Please prevent freeze-thaw cycles. **Product Datasheet**

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