

**RELIA**Tech GmbH  
Lindenerstr. 15  
38300 Wolfenbüttel  
Germany

Tel.: +49 5331 8586 987  
Fax.: +49 5331 8586 989  
Email: [info@reliatech.de](mailto:info@reliatech.de)  
Web: <http://www.reliatech.de>

## Recombinant Human sEGFR

**Description:** Recombinant human soluble EGFR is produced as a glycosylated monomeric protein with a mass of approximately 70 kDa in insect cells.

The epidermal growth factor receptor (EGFR) subfamily of receptor tyrosine kinases comprises four members: EGFR (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 EGFR 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. EGFR 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 EGFR homodimerization as well as heterodimerization with ErbB2, resulting in kinase activation, tyrosine phosphorylation and cell signaling. EGFR can also be recruited to form heterodimers with the ligand-activated ErbB3 or ErbB4. EGFR signaling has been shown to regulate multiple biological functions including cell proliferation, differentiation, motility and apoptosis. In addition, EGFR signaling has also been shown to play a role in carcinogenesis.

<b>Source:</b>	Insect cells
<b>Molecular Weight:</b>	~80 kDa
<b>Subunit:</b>	glycosylated monomer
<b>Purity:</b>	~ 90%, by SDS-PAGE and visualized by silver stain
<b>Endotoxin level:</b>	< 0.1 ng per $\mu$ g of sEGFR
<b>Stabilizer:</b>	none
<b>Buffer:</b>	PBS, pH 7.4
<b>Formulation:</b>	lyophilized

**Reconstitution:** The lyophilized sEGFR is soluble in water and most aqueous buffers, The lyophilized sEGFR should be reconstituted in water or PBS to a concentration of not lower than 100  $\mu$ g/ml.

**Stability:** Lyophilized samples are stable for greater than six months at  $-20^{\circ}\text{C}$  to  $-70^{\circ}\text{C}$ . Reconstituted sEGFR should be stored in working aliquots at  $-20^{\circ}\text{C}$ . **Avoid repeated freeze-thaw cycles!**

**Usage:** sEGFR is offered for research use. Not for drug use. **Not for human use!**

**Catalogue number:** S01-040

**Size:** 25  $\mu$ g

Literature: [Daly, R.J., Growth Factors, 16:255, 1999; Schlessinger, J., Cell. 103:211, 2000; Maihle, N.J. *et al.*, Cancer Treat. Res. 107:247, 2002]

**\*\*Please note: always centrifuge product before opening vial!\*\***