

Human EGFR / HER1 / ErbB1 Protein (Fc Tag)



Sino Biological
Biological Solution Specialist

Catalog Number: 10001-H02H

General Information

Gene Name Synonym:

ERBB; ERBB1; HER1; mENA; NISBD2; PIG61

Protein Construction:

A DNA sequence encoding the extracellular domain (Met 1-Ser 645) of human EGFR (NP_005219) was fused with the Fc region of human IgG1 at the C-terminus.

Source: Human

Expression Host: HEK293 Cells

QC Testing

Purity: > 97 % as determined by SDS-PAGE. >85% as determined by SEC-HPLC

Bio Activity:

Measured by its binding ability in a functional ELISA.
Immobilized recombinant human EGF at 10 µg/ml (100 µl/well) can bind human EGFR with a linear range of 0.64-400 ng/ml.

Endotoxin:

< 1.0 EU per µg of the protein as determined by the LAL method

Predicted N terminal: Leu 25

Molecular Mass:

The recombinant human EGFR/Fc chimera is a homodimeric protein. The reduced monomer consists of 860 amino acids and has a calculated molecular mass of 95 kDa. As a result of glycosylation, the recombinant protein migrates as an approximately 110-140 kDa protein in SDS-PAGE under reducing conditions.

Formulation:

Lyophilized from sterile PBS, pH 7.4

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

Usage Guide

Stability & Storage:

Samples are stable for twelve months from date of receipt at -20°C to -80°C.

Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

As a member of the epidermal growth factor receptor (EGFR) family, EGFR protein is type I transmembrane glycoprotein that binds a subset of EGF family ligands including EGF, amphiregulin, TGF- α , betacellulin, etc. EGFR protein plays a crucial role in signaling pathway in the regulation of cell proliferation, survival and differentiation. Binding of a ligand induces EGFR protein homo- or heterodimerization, the subsequent tyrosine autophosphorylation and initiates various downstream pathways (MAPK, PI3K/PKB and STAT). In addition, EGFR signaling also has been shown to exert action on carcinogenesis and disease progression, and thus EGFR protein is proposed as a target for cancer therapy currently.

References

- Schlessinger, J. (2000) Cell signaling by receptor tyrosine kinases. Cell 103(2): 211-25.
- Giaccone, G. (2005) HER1/EGFR-targeted agents: predicting the future for patients with unpredictable outcomes to therapy. Ann. Oncol. 16(4): 538-48.
- Yarden, Y., et al. (2001) Untangling the ErbB signalling network. Nat. Rev. Mol. Cell. Biol. 2(2): 127-37.