Mouse EGFR / HER1 / ErbB1 Protein (His Tag)

Catalog Number: **51091-M08H**

Sino Biological
Biological Solution Specialist

General Information

Gene Name Synonym:

9030024J15Rik; AI552599; Erbb; Errb1; Errp; wa-2; wa2; Wa5

Protein Construction:

A DNA sequence encoding the extracellular domain of mouse EGFR (Q01279) (Met 1-Ser 647) was fused with a polyhistidine tag at the C-terminus.

Source: Mouse

Expression Host: HEK293 Cells

QC Testing

Purity: > 95 % as determined by SDS-PAGE. >85% as determined by SEC-HPLC

Bio Activity:

1. Measured by its binding ability in a functional ELISA. 2. Immobilized mouse EGFR-his at 10 μg/mL (100 μl/well) can bind human EGF-Fc (Cat:10605-H01H), The EC_{50} of human EGF-Fc (Cat:10605-H01H) is 60-90 ng/mL. 3. Immobilized mouse EGFR-his at 10 μg/mL (100 μl/well) can bind? mouse EGF-Fc (Cat:50482-M01H), The EC50 of mouse EGF-Fc (Cat:50482-M01H) is 70-100 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 secreted recombinant mouse EGFR comprises 634 amino acids and has a calculated molecular mass of 70.8 kDa. As a result of glycosylation, the apparent molecular mass of rmEGFR is approximately 100 kDa 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℃ to -80℃.

Store it under sterile conditions at -20℃ to -80℃ 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 down stream 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

1.Schlessinger, J. (2000) Cell signaling by receptor tyrosine kinases. Cell 103(2): 211-25. 2.Giaccone, G. (2005) HER1/EGFR-targeted agents: predicting the future for patients with unpredictable outcomes to therapy. Ann. Oncol. 16(4): 538-48. 3.Yarden, Y., *et al.* (2001) Untangling the ErbB signalling network. Nat. Rev. Mol. Cell. Biol. 2(2): 127-37.