Human EGFR Protein (Isoform vIII, His & Avi Tag), Biotinylated

Catalog Number: 29662-H27B-B

General Information

Gene Name Synonym:

ERBB; ERBB1; HER1; mENA; NISBD2; PIG61

Protein Construction:

A DNA sequence encoding the human EGFRvIII (NP_001333870.1) (Met1-Ser378) was expressed with a c-terminal polyhistidine tagged AVI tag at the C-terminus. The expressed protein was biotinylated in vivo by the Biotin-Protein ligase (BirA enzyme) which is co-expressed.

Source: Human

Expression Host: Baculovirus-Insect Cells

QC Testing

Biotin/Protein Ratio:

0.7-1 as determined by the HABA assay.

Purity: > 90 % as determined by SDS-PAGE.

Endotoxin:

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

Predicted N terminal: Leu 25

Molecular Mass:

The recombinant human EGFRvIII consists of 379 amino acids and predicts a molecular mass of 41.8 kDa.

Formulation:

Lyophilized from sterile PBS, pH 6.5.

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℃.

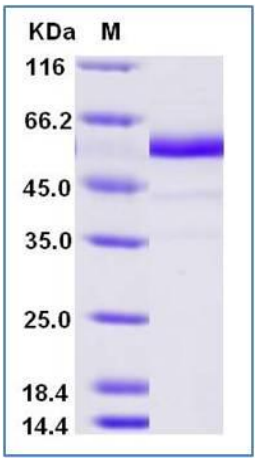
Store it under sterile conditions at -20℃ to -80℃ upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

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.