Rat HER3 / ErbB3 Protein (His Tag)

Catalog Number: **80111-R08H**

General Information

Gene Name Synonym:

ERBB3

Protein Construction:

A DNA sequence encoding the rat ERBB3 (NP_058914.2) (Met1-His641) was expressed, fused with a polyhistidine tag at the C-terminus.

Source: Rat

Expression Host: HEK293 Cells

QC Testing

Purity: > 95 % as determined by SDS-PAGE

Bio Activity:

Immobilized Human NRG1 Beta 1 Fc(Cat:11609-H01H2) at 2 μg/ml (100 μl/well) can bind Rat HER3/ERBB3 His(Cat:80111-R08H) with a linear range of 0.8-4.0 ug/mL.

Endotoxin:

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

Predicted N terminal: Ser 20

Molecular Mass:

The recombinant rat ERBB3 comprises 633 amino acids and predicts a molecular mass of 69.9 kDa. The apparent molecular mass of the recombinant protein is approximately 112 kDa in SDS-PAGE under reducing conditions due to glycosylation.

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℃.

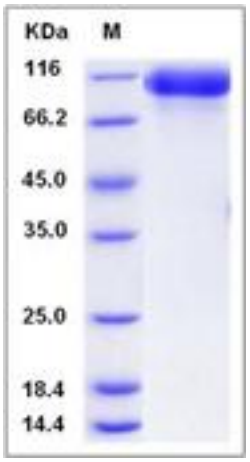
Store it under sterile conditions at -20℃ to -80℃ upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

ErbB3, also known as Her3(human epidermal growth factor receptor3), is a member of the epidermal growth factor receptor (EGFR) family of receptor tyrosine kinases. This membrane-bound glycoprotein has a neuregulin binding domain but has not an active kinase domain., and therefore can not mediate the intracellular signal transduction through protein phosphorylation. However, its heterodimer with ErbB2 or other EGFR members responsible for tyrosine phosphorylation forms a receptor complex with high affinity, and initiates the related pathway which lead to cell proliferation or differentiation. ErbB3 has been shown to implicated in numerous cancers, including prostate, bladder, and breast tumors. This protein has different isoforms derived from alternative splicing variants, and among which, the secreted isoform lacking the intermembrane region modulates the activity of membrane-bound form.

References

1.Kraus M.H., *et al.*,(1989), Isolation and characterization of ERBB3, a third member of the ERBB/epidermal growth factor receptor family: evidence for overexpression in a subset of human mammary tumors. Proc. Natl. Acad. Sci. U.S.A. 86:9193-9197. 2.Plowman G.D., *et al.*, (1990), Molecular cloning and expression of an additional epidermal growth factor receptor-related gene.Proc. Natl. Acad. Sci. U.S.A. 87:4905-4909. 3.Katoh M., *et al.*,(1993), c-erbB3 gene encodes secreted as well as transmembrane receptor tyrosine kinase.Biochem. Biophys. Res. Commun. 192:1189-1197.