

Human HER3 / ErbB3 Protein (His Tag)

Catalog Number: 10201-H08H



Sino Biological
Biological Solution Specialist

General Information

Gene Name Synonym:

c-erbB-3; c-erbB3; EEBB3; ErbB-3; erbB3-S; HER3; LCCS2; MDA-BF-1; p180-ErbB3; p45-sErbB3; p85-sErbB3

Protein Construction:

A DNA sequence encoding the extracellular domain (Met 1-Thr 643) of human ErbB3 (NP_001973.2) precursor was expressed, with a C-terminal polyhistidine tag.

Source: Human

Expression Host: HEK293 Cells

QC Testing

Purity: > 95 % as determined by SDS-PAGE

Bio Activity:

1. Measured by its binding ability in a functional ELISA. 2. Immobilized human ErbB3 at 2 µg/mL (100 µl/well) can bind human NRG1 (isoform Beta1), The EC₅₀ of human NRG1 (isoform Beta1) is 0.43 µg/mL.

Endotoxin:

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

Stability:

Samples are stable for up to twelve months from date of receipt at -70 °C

Predicted N terminal: Ser 20

Molecular Mass:

The recombinant human ErbB3 protein consists of 635 amino acids after the removal of signal peptide and has a calculated molecular mass of 70.2 kDa. As a result of glycosylation, the recombinant ErbB3 migrates as an approximately 100-110 kDa band in SDS-PAGE under reducing conditions.

Formulation:

Lyophilized from sterile PBS, pH 7.5

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

Storage:

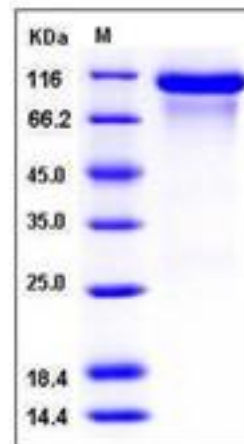
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

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.

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