Human HER3 / ErbB3 Protein (aa 730-1065, His & GST Tag)

Catalog Number: 10201-H20B1

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 cytoplasmic domain (Pro 730-Ser 1065) of human ErbB3 (NP_001973.2) was fused with the N-terminal polyhistidine-tagged GST tag at the N-terminus.

Source: Human

Expression Host: Baculovirus-Insect Cells

QC Testing

Purity: > 75 % as determined by SDS-PAGE

Bio Activity:

1. No Kinase Activity 2. Using the Octet RED System, the affinity constant (Kd) of human ErBB3-GST (Cat:10201-H20B1) bound to human NRG1 (aa 2-224) (Cat:11609-H04H) was 20 nM.

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 ℃

Predicted N terminal: Met

Molecular Mass:

The recombinant human ErbB3 /GST chimera consists of 573 amino acids and has a calculated molecular mass of 65 KDa. It migrates as an approximately 65 KDa band as predicted in SDS-PAGE under reducing conditions.

Formulation:

Lyophilized from sterile 50mM Tris, 100mM NaCl, pH 7.5, 10% gly, 1mM GSH

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:

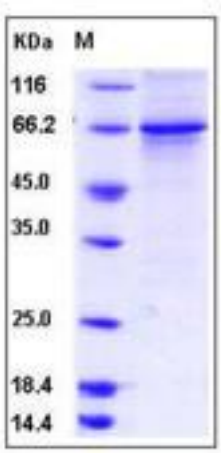
Store it under sterile conditions at -20℃ to -80℃ upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

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.