

Biotinylated Human ErbB4 / Her4 Protein, His,Avitag™ (MALS verified)

Catalog # ER4-H82E3



Synonyms

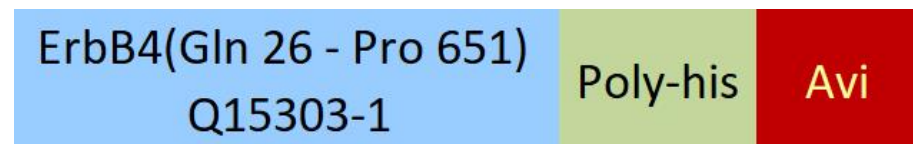
HER4, ErbB4, MGC138404, p180erbB4

Source

Biotinylated Human ErbB4 Protein, His,Avitag (ER4-H82E3) is expressed from human 293 cells (HEK293). It contains AA Gln 26 - Pro 651 (Accession # [Q15303-1](#)).

Predicted N-terminus: Gln 26

Molecular Characterization



This protein carries a polyhistidine tag at the C-terminus, followed by an Avi tag (Avitag™).

The protein has a calculated MW of 73.7 kDa. The protein migrates as 95-125 kDa when calibrated against [Star Ribbon Pre-stained Protein Marker](#) under reducing (R) condition (SDS-PAGE) due to glycosylation.

Labeling

Biotinylation of this product is performed using Avitag™ technology. Briefly, the single lysine residue in the Avitag is enzymatically labeled with biotin.

Protein Ratio

Passed as determined by the HABA assay / binding ELISA.

Endotoxin

Less than 1.0 EU per µg by the LAL method / rFC method.

Purity

>90% as determined by SDS-PAGE.

>90% as determined by SEC-MALS.

Formulation

Lyophilized from 0.22 µm filtered solution in PBS, pH7.4 with trehalose as protectant.

Contact us for customized product form or formulation.

Reconstitution

Please see Certificate of Analysis for specific instructions.

For best performance, we strongly recommend you to follow the reconstitution protocol provided in the CoA.

Shipping and Storage

This product is shipped at ambient temperature.

For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

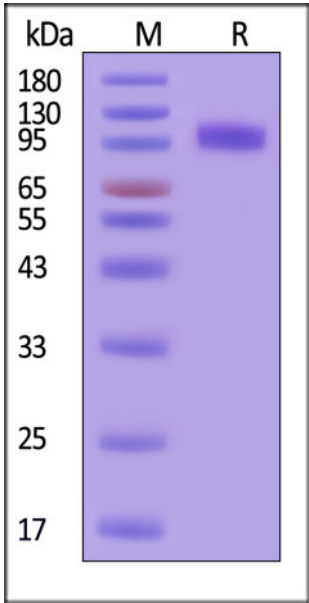
This product is stable after storage at:

- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

ACRO Quality Management System

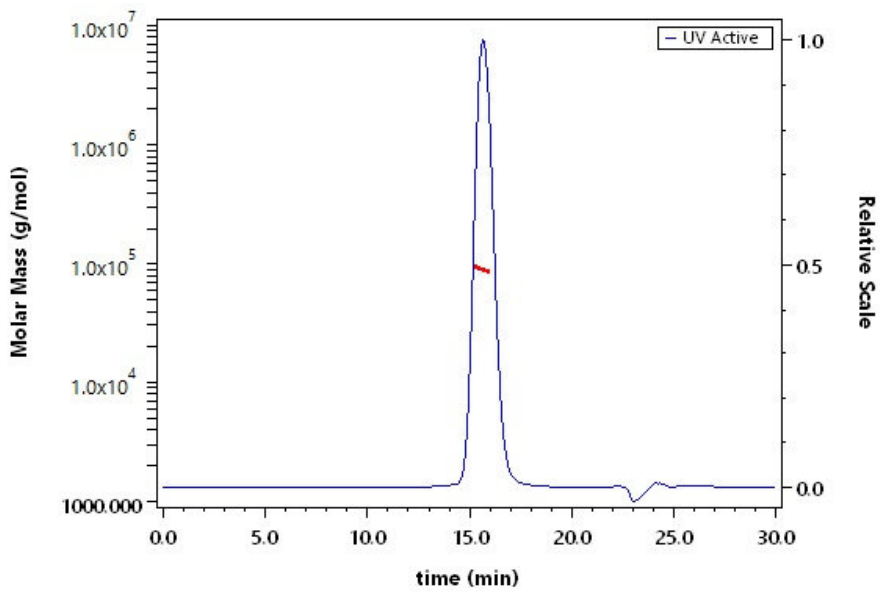
- [QMS\(ISO, GMP\)](#)
- [Quality Advantages](#)
- [Quality Control Process](#)

SDS-PAGE



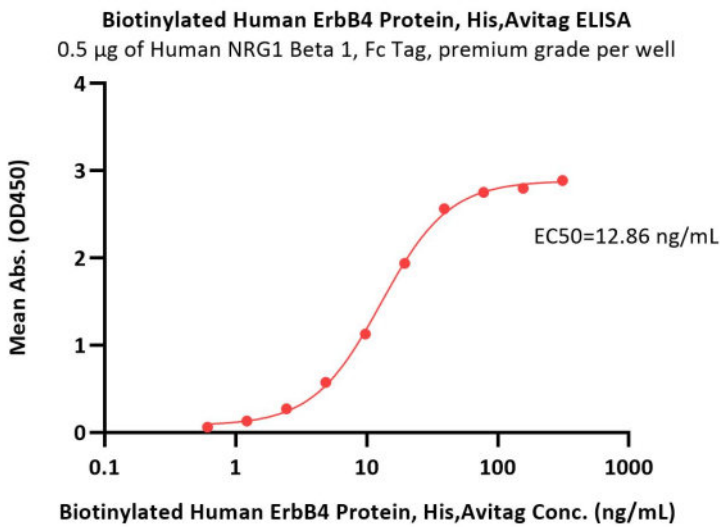
Biotinylated Human ErbB4 Protein, His,Avitag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 90% (With [Star Ribbon Pre-stained Protein Marker](#)).

SEC-MALS



The purity of Biotinylated Human ErbB4 Protein, His,Avitag (Cat. No. ER4-H82E3) is more than 90% and the molecular weight of this protein is around 80-105 kDa verified by SEC-MALS.

Bioactivity-ELISA



Immobilized Human NRG1 Beta 1, Fc Tag, premium grade (Cat. No. NR1-H5268) at 5 µg/mL (100 µL/well) can bind Biotinylated Human ErbB4 Protein, His,Avitag (Cat. No. ER4-H82E3) with a linear range of 0.6-20 ng/mL (QC tested).

Background

Receptor tyrosine-protein kinase erbB-4 (ErbB4), also known as Her4, is a single-pass type I transmembrane glycoprotein that is a member of the ErbB family of tyrosine kinase receptors. ErbB family members serve as receptors for the epidermal growth factor (EGF) family of growth factors. ErbB4 is expressed in normal skeletal muscle, heart, pituitary, brain and several breast carcinomas. ERBB4 contains multiple furin-like cysteine rich domains, a tyrosine kinase domain, a phosphatidylinositol-3 kinase binding site and a PDZ domain binding motif. The protein binds to and is activated by neuregulins-2 and -3, heparin-binding EGF-like growth factor and betacellulin. Ligand binding induces a variety of cellular responses including mitogenesis and differentiation. Multiple proteolytic events allow for the release of a cytoplasmic fragment and an extracellular fragment. ErbB4 appears to play important roles in neuronal development, development of the heart and cancer. ERBB4 has been shown to interact with: DLG4, NRG1, STAT5A, and YAP1. Mutations in this gene have been associated with cancer. Other single-nucleotide polymorphisms and a risk haplotype have been linked to schizophrenia.



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