

HER3/ERBB3 Protein, Human, Recombinant (mFc)

General Information

Synonyms:	c-erbB-3;c-erbB3;HER3;erb-b2 receptor tyrosine kinase 3;p180-ErbB3;p45-sErbB3;erbB3-S;LCCS2;MDA-BF-1;EEBB3;p85-sErbB3;ErbB-3
Protein Construction:	Ser20-Thr643
Species:	Human
Expression Host:	HEK293 Cells
Accession:	P21860
Molecular Weight:	95 kDa (predicted); 120-135 kDa (reducing conditions)

QC Testing

Biological Activity:	Loaded Human NRG1 Beta (245AA) on APS Biosensor, can bind Human HER3-mFc with an affinity constant of 3.6 nM as determined in BLI assay. Loaded Human NRG1Beta (246AA) on APS Biosensor, can bind Human HER3-mFc with an affinity constant of 4.3 nM as determined in BLI assay.
Purity:	> 95% as determined by SDS-PAGE
Endotoxin:	< 1.0 EU/μg of the protein as determined by the LAL method.
Formulation:	Lyophilized from a 0.2 μm filtered solution of PBS, pH 7.4.

Preparation and Storage

Reconstitution:

Reconstitute the lyophilized protein in sterile deionized water. The product concentration should not be less than 100 μg/mL. Before opening, centrifuge the tube to collect powder at the bottom. After adding the reconstitution buffer, avoid vortexing or pipetting for mixing.

Stability & Storage:

It is recommended to store recombinant proteins at -20°C to -80°C for future use. Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

Protein Background

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. Cancer Immunotherapy Immune Checkpoint Immunotherapy Targeted Therapy

Reference

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.

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.

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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