Data Sheet (Cat.No.TMPY-06658)

TargetMol

HER3/ERBB3 Protein, Mouse, Recombinant (hFc)

General Information

Synonyms:	Erbb3;C76256;Erbb-3;erb-b2 receptor tyrosine kinase 3;Erbb3r;Erbb-3r;Her3
Protein Construction:	A DNA sequence encoding the Mouse ERBB3 (Q61526) (Met1-His641) was expressed with the Fc region of human IgG1 at the C-terminus. Predicted N terminal: Ser 20
Species:	Mouse
Expression Host:	HEK293 Cells
Accession:	Q61526
Molecular Weight:	95.23 kDa (predicted); 117.08 kDa (reducing conditions)

QC Testing

Biological Activity:	Immobilized Recombinant Mouse HER3/ERBB3 Protein (ECD, Fc Tag) at 2μg/mL (100μL/well) can bind Recombinant Human NRG1-beta 1 Protein (ECD, Fc & AVI Tag), Biotinylated , the EC50 is 115-340 ng/mL.
Purity:	≥ 90 % as determined by SDS-PAGE. ≥ 90 % as determined by SEC-HPLC.
Endotoxin:	< 1.0 EU/μg of the protein as determined by the LAL method.
Formulation:	Lyophilized from a solution filtered through a 0.22 μm filter, containing PBS, pH 7.4. Typically, a mixture containing 5% to 8% trehalose, mannitol, and 0.01% Tween 80 is incorporated as a protective agent before lyophilization.

Preparation and Storage

Reconstitution:

A Certificate of Analysis (CoA) containing reconstitution instructions is included with the products. Please refer to the CoA for detailed information.

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 ImmunotherapyImmune CheckpointImmunotherapyTargeted 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.