Data Sheet (Cat.No.TMPY-00447)

TargetMol

Ephrin B3/EFNB3 Protein, Mouse, Recombinant (His)

General Information

Synonyms:	ephrin-B3;EFL-6;ELF-3;NLERK-2;LERK-8;Elk-L3;Epl8
Protein Construction:	A DNA sequence encoding the mouse Efnb3 (NP_031937.1) (Met1-Ala227) was expressed with a polyhistidine tag at the C-terminus. Predicted N terminal: Leu 28
Species:	Mouse
Expression Host:	HEK293 Cells
Accession:	O35393
Molecular Weight:	23.5 kDa (predicted)

QC Testing

Biological Activity:	1.Measured by its binding ability in a functional ELISA. 2. Immobilized mouse EFNB3-His at 10 μg/mL (100μL/well) can bind biotinylated mouse EPHB3-His, the EC50 of biotinylated mouse EPHB3-His 0.02-0.4 μg/mL.
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 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.

Shipping:

In general, Lyophilized powders are shipping with blue ice.

Protein Background

Ephrin B3 belongs to the ephrin family. Ephrins are divided into the ephrin-A (EFNA) class, which are anchored to the membrane by a glycosylphosphatidylinositol linkage, and the ephrin-B (EFNB) class, which are transmembrane proteins. Ephrin B3 is important in brain development as well as in its maintenance. It is especially important for forebrain function since its expression levels were particularly high in several forebrain subregions

compared to other brain subregions. Ephrin B3 binds to, and induce the collapse of, commissural axons/growth cones in vitro. It may play a role in constraining the orientation of longitudinally projecting axons.

Reference

Takemoto M,et al.(2002) Ephrin-B3-EphA4 interactions regulate the growth of specific thalamocortical axon populations in vitro. Eur J Neurosci. 16(6):1168-72.

Brckner K,et al.(1999) EphrinB ligands recruit GRIP family PDZ adaptor proteins into raft membrane microdomains. Neuron. 22(3):511-24.

Bergemann A,et al.(1998) Ephrin-B3, a ligand for the receptor EphB3, expressed at the midline of the developing neural tube. Oncogene. 16(4):471-80.

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