Data Sheet (Cat.No.TMPY-03126)

TargetMol

NXPH1 Protein, Mouse, Recombinant (His)

General Information

Synonyms: neurexophilin 1;C130005L03Rik

Protein Construction: A DNA sequence encoding the mouse NXPH1 (Q61200) (Ala22-Gly271) was expressed with a C-terminal polyhistidine tag. Predicted N terminal: Ala 22

Species: Mouse

Expression Host: HEK293 Cells

Accession: Q61200

Molecular Weight: 30.1 kDa (predicted); 46-48 kDa (reducing condition, due to glycosylation)

QC Testing

Biological Activity: Activity testing is in progress. It is theoretically active, but we cannot guarantee it. If you require protein activity, we recommend choosing the eukaryotic expression version first.

Purity: > 85 % 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.

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

Neurexophilin-1 or NXPH1 is a secreted glycoprotein, which belongs to the Neurexophilin family. The Neurexophilin family contains at least four genes and resembles a neuropeptide, suggesting a function as an endogenous ligand for alpha-neurexins. The mammalian brains contain four genes for neurexophilins the products of which share a common structure composed of five domains: an N-terminal signal peptide, a variable N-terminal domain, a highly conserved central domain that is N-glycosylated, a short linker region, and a

conserved C-terminal domain that is cysteine-rich. Neurexophilin-1 constitutes a secreted cysteine-rich glycoprotein, forms a very tight complex with alpha neurexins, a group of proteins that promote adhesion between dendrites and axons. Neurexophilins 1 and 3 but not 4 (neurexophilin 2 is not expressed in rodents) bind to a single individual LNS domain, the second overall LNS domain in all three alpha-neurexins.

Reference

Missler M,et al.(1998) Neurexophilin binding to alpha-neurexins. A single LNS domain functions as an independently folding ligand-binding unit. J Biol Chem. 273(52): 34716-23.
Missler M,et al.(1998) Neurexophilins form a conserved family of neuropeptide-like glycoproteins. J Neurosci. 18 (10): 3630-8.
Petrenko AG,et al.(1996) Structure and evolution of neurexophilin. J Neurosci. 16(14): 4360-9.