Data Sheet (Cat.No.TMPY-02682)

TargetMol

NELL2 Protein, Human, Recombinant (His)

General Information

Synonyms:	NEL-like 2 (chicken);NRP2
Protein Construction:	A DNA sequence encoding the human NELL2 (Q99435) (Met 1-Leu 816) was fused with a polyhistidine tag at the C-terminus. Predicted N terminal: Leu 22
Species:	Human
Expression Host:	Baculovirus Insect Cells
Accession:	Q99435
Molecular Weight:	90.4 kDa (predicted); 110 kDa (reducing conditions)

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:	> 87 % 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 20 mM Tris, 500 mM NaCl, pH 7.4, 10% gly. 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

A brain-enriched secreting signal peptide, NELL2, has been suggested to play multiple roles in the development, survival, and activity of neurons in the mammal. NELL2 is an abundant glycoprotein containing an EGF-like domain in the neural tissues where it has multiple physiological functions by interacting with protein kinase C (PKC). There are two different splicing variant forms of NELL2 identified so far. One is secreted NELL2 (sNELL2) which is a neuron-specific variant and the other is cytosolic NELL2 (cNELL2) which is a non-secreted splicing

variant of NELL2. NELL2 is strongly expressed in the brain of adults and fetuses but only weakly in the fetal kidney.

Reference

Kuroda S,et al.(1999) Biochemical characterization and expression analysis of neural thrombospondin-1-like proteins NELL1 and NELL2. Biochem Biophys Res Commun. 265(1): 79-86.
Oyasu M,et al.(2000) Immunocytochemical localization of a neuron-specific thrombospondin-1-like protein, NELL2: light and electron microscopic studies in the rat brain. Brain Res Mol Brain Res. 76(1): 151-60.
Nelson BR,et al.(2002) Restricted neural epidermal growth factor-like like 2 (NELL2) expression during muscle and neuronal differentiation. Mech Dev. 119 Suppl 1: 11-9.

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