

Recombinant Human Neuroligin 1/NLGN1 Protein (His Tag)

Catalog No. PKSH031062

Note: Centrifuge before opening to ensure complete recovery of vial contents.

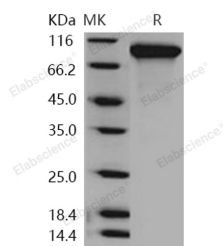
Description

Synonyms	Neuroligin-1;NLGN1;KIAA1070;NL1
Species	Human
Expression Host	HEK293 Cells
Sequence	Met 1-Ser 677
Accession	NP_055747.1
Calculated Molecular Weight	72.0 kDa
Observed molecular weight	85-95 kDa
Tag	C-His
Bioactivity	Not validated for activity

Properties

Purity	> 97 % as determined by reducing SDS-PAGE.
Endotoxin	< 1.0 EU per µg of the protein as determined by the LAL method.
Storage	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.
Shipping	This product is provided as lyophilized powder which is shipped with ice packs.
Formulation	Lyophilized from sterile PBS, pH 7.4 Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual.
Reconstitution	Please refer to the printed manual for detailed information.

Data



> 97 % as determined by reducing SDS-PAGE.

Background

Neuroligin 1 (NLGN1) belongs to the type-B carboxylesterase/lipase family; is a synaptic cell-adhesion molecule that is enriched in postsynaptic densities where it may recruit receptors; channels; and signal-transduction molecules to synaptic

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sites of cell adhesion. Neuroligins consist of five members (NLGN1; NLGN2; NLGN3; NLGN4 and NLGN4Y); which interact with beta-neurexins and this interaction is involved in the formation of functional synapses. The extracellular domain of functional Neuroligin 1 associates as a dimer when analyzed by sedimentation equilibrium. Neuroligin 1 has a unique N-linked glycosylation pattern in the neuroligin family; and glycosylation and its processing modify neuroligin activity. Neuroligin 1 is a potent trigger for the de novo formation of synaptic connections; and it has recently been suggested that it is required for the maturation of functionally competent excitatory synapses. The persistent expression of Neuroligin 1 is required for the maintenance of NMDAR-mediated synaptic transmission; which enables normal development of synaptic plasticity and long-term memory in the amygdala of adult animals.