

Recombinant Mouse Neuroligin 1/NLGN1 Protein (His Tag)

Catalog Number: PKSM040520

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

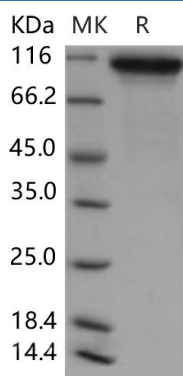
Description

| | |
|----------------------|---|
| Species | Mouse |
| Source | HEK293 Cells-derived Mouse Neuroligin 1/NLGN1 protein Met 1-Ser 697, with an C-terminal His |
| Calculated MW | 73.5 kDa |
| Observed MW | 100-110 kDa |
| Accession | Q99K10-1 |
| Bio-activity | 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% Tween 80 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

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Neuroigin 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 sites of cell adhesion. Neuroigins 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 Neuroigin 1 associates as a dimer when analyzed by sedimentation equilibrium. Neuroigin 1 has a unique N-linked glycosylation pattern in the neuroigin family, and glycosylation and its processing modify neuroigin activity. Neuroigin 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 Neuroigin 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.

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