Neuroligin-1NLGN1 Protein, Mouse (HEK293, His)

Cat. No.:	HY-P74704
Synonyms:	Neuroligin-1; NLGN1; KIAA1070
Species:	Mouse
Source:	HEK293
Accession:	Q99K10 (M1-S697)
Gene ID:	192167
Molecular Weight:	100-110 kDa

PROPERTIES

Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 μm filtered solution of PBS, pH 7.4. Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization.
Endotoxin Level	<1 EU/μg, determined by LAL method.
Reconsititution	It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH_2O.
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background	Neuroligin-1 (NLGN1) Protein, a cell surface protein, actively engages in cell-cell interactions through its interactions with neurexin family members. This protein plays a pivotal role in synapse function and synaptic signal transmission, potentially mediating its effects by recruiting and clustering other synaptic proteins. While NLGN1 may contribute to the initial formation of synapses, it is not deemed essential for this process. In vitro studies demonstrate its ability to trigger the de novo formation of presynaptic structures, highlighting its involvement in the specification of excitatory synapses. Beyond synapse dynamics, NLGN1 is crucial for maintaining the quality of wakefulness and the normal synchrony of cerebral cortex activity during wakefulness and sleep. Its intricate interactions involve neurexins NRXN1, NRXN2, and NRXN3, with the binding facilitated by heparan sulfate glycan modification on neurexin. Additionally, NLGN1 interacts with DLG4/PSD-95 and exhibits associations with AIP1, GOPC, PDZRN3, and NLGN3, emphasizing its diverse roles in nervous system development and synaptic regulation.

Caution: Product has not been fully validated for medical applications. For research use only.

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