

Human Neuroligin-3 / NLGN3 Protein (His Tag)

Catalog Number: 11160-H08H



Sino Biological
Biological Solution Specialist

General Information

Gene Name Synonym:

HNL3

Protein Construction:

A DNA sequence encoding the human NLGN3 isoform 2 (Q9NZ94-2) extracellular domain (Met 1-Ser 689) was expressed, fused with a polyhistidine tag at the C-terminus.

Source: Human

Expression Host: HEK293 Cells

QC Testing

Purity: > 92 % as determined by SDS-PAGE

Endotoxin:

< 1.0 EU per µg of the protein as determined by the LAL method

Stability:

Samples are stable for up to twelve months from date of receipt at -70 °C

Predicted N terminal: Gln 38

Molecular Mass:

The recombinant human NLGN3 consists of 663 amino acids and has a predicted molecular mass of 74 kDa. The apparent molecular mass of rh NLGN3 is approximately 100-110 kDa in SDS-PAGE under reducing conditions due to glycosylation.

Formulation:

Lyophilized from sterile PBS, pH 7.4

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

Usage Guide

Storage:

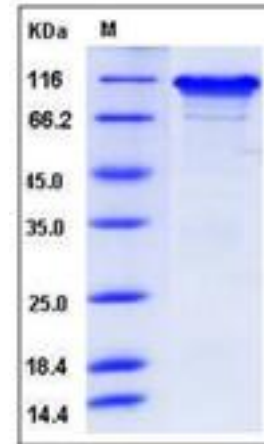
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

Neuroligin 3 (NLGN3) is a member of the type-B carboxylesterase/lipase family. Neuroligins (NLGNs) are a family of presumptive postsynaptic cell adhesion molecules. Neuroligins (NLs) constitute a family of cell-surface proteins that interact with neuroligins (beta-Nxs), another class of neuronal cell-surface proteins, one of each class functioning together in synapse formation. Neuroligins control the formation and functional balance of excitatory and inhibitory synapses in hippocampal neurons. NLGN1 and NLGN2 isoforms are concentrated at glutamatergic and GABAergic synapses, respectively, but the cellular expression and synaptic localization of the endogenous NLGN3 was enriched in brain, where NLGN3 protein levels increased during postnatal development, coinciding with the peak of synaptogenesis. The NLGN3 is a synaptic adhesion molecule that is a shared component of glutamatergic and GABAergic synapses. Mutations in NLGN3 gene may be associated with autism and Asperger syndrome.

References

1. Chih B, *et al.* (2005) Control of excitatory and inhibitory synapse formation by neuroligins. *Science*. 307(5713): 1324-8.
2. Paraoanu LE, *et al.* (2006) Expression patterns of neuroligin-1 and neuroligins in brain and retina of the chick embryo: Neuroligin-3 is absent in retina. *Neurosci Lett*. 395(2): 114-7.
3. Budreck EC, *et al.* (2007) Neuroligin-3 is a neuronal adhesion protein at GABAergic and glutamatergic synapses. *Eur J Neurosci*. 26(7): 1738-48.

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