

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Neuroligin 3 in direct ELISAs. In this format, 100% cross-reactivity with recombinant human (rh) Neuroligin 3 variant 2 and recombinant rat Neuroligin 3 variant 2 and no cross-reactivity with rhNeuroligin 1 variant 2, rhNeuroligin 2, rhNeuroligin 4, recombinant rat Neuroligin 1, 1 variant 2, 2 variant 2, or 3 variant 4 is observed.
Source	Monoclonal Mouse IgG _{2B} Clone # 566209
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Mouse myeloma cell line NS0-derived recombinant human Neuroligin 3 Gln38-Leu709 Accession # NP_061850
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 µm filtered solution in PBS.

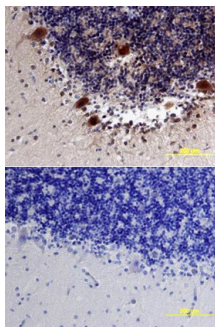
APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.

	Recommended Concentration	Sample
Immunocytochemistry	8-25 µg/mL	Immersion-fixed 7-day differentiated rat cortical stem cells
Immunohistochemistry	8-25 µg/mL	See Below

DATA

Immunohistochemistry



Neuroligin 3/NLGN3 in Human Brain. Neuroligin 3/NLGN3 was detected in immersion fixed paraffin-embedded sections of human brain (cerebellum) using Human Neuroligin 3/NLGN3 Monoclonal Antibody (Catalog # MAB6088) at 15 µg/mL overnight at 4 °C. Tissue was stained using the Anti-Mouse HRP-DAB Cell & Tissue Staining Kit (brown; Catalog # CTS002) and counterstained with hematoxylin (blue). Lower panel shows a lack of labeling if primary antibodies are omitted and tissue is stained only with secondary antibody followed by incubation with detection reagents. View our protocol for [Chromogenic IHC Staining of Paraffin-embedded Tissue Sections](#).

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.5 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

NLGN3 (Neuroligin 3; also gliotactin homolog) is a 110-114 kDa member of the type-B carboxyesterase/lipase family of proteins. It is a neuronal transmembrane protein that forms Ca⁺⁺-dependent intercellular junctions with short β-neurexin isoforms. This seems to contribute to both glutamatergic and GABAergic synapse formation. Mutations in NLGN3 are associated with a reduction in protein expression and the occurrence of autism. Mature human NLGN3 is an 811 amino acid (aa) type I transmembrane protein. It contains a 672 aa extracellular domain (ECD) (aa 38-709), plus a 118 aa cytoplasmic region. The ECD possesses a nonfunctional carboxyesterase domain (aa 41-625). Multiple splice variants exist. There is a deletion of aa 153-172 that may also be accompanied by an alternative start site at Met118, and a deletion of aa 153-192 that may also be accompanied by a five Lys substitution for aa 554-848. Over aa 38-709, human NLGN3 shares 99% aa identity with mouse NLGN3.