

## DESCRIPTION

|                           |                                                                                                                                                                                                                                                                             |
|---------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Species Reactivity</b> | Human                                                                                                                                                                                                                                                                       |
| <b>Specificity</b>        | 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, rhNeuroligi                         |
| <b>Source</b>             | Monoclonal Mouse IgG <sub>2B</sub> Clone # 566209                                                                                                                                                                                                                           |
| <b>Purification</b>       | Protein A or G purified from hybridoma culture supernatant                                                                                                                                                                                                                  |
| <b>Immunogen</b>          | Mouse myeloma cell line NS0-derived recombinant human Neuroligin 3<br>Gln38-Leu709<br>Accession # NP_061850                                                                                                                                                                 |
| <b>Conjugate</b>          | Alexa Fluor 488<br>Excitation Wavelength: 488 nm<br>Emission Wavelength: 515-545 nm                                                                                                                                                                                         |
| <b>Formulation</b>        | Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide<br><br>*Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions. |

## 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.

|                             |                                                                        |
|-----------------------------|------------------------------------------------------------------------|
| <b>Immunocytochemistry</b>  | Optimal dilution of this antibody should be experimentally determined. |
| <b>Immunohistochemistry</b> | Optimal dilution of this antibody should be experimentally determined. |

## PREPARATION AND STORAGE

|                                |                                                                                                                   |
|--------------------------------|-------------------------------------------------------------------------------------------------------------------|
| <b>Shipping</b>                | The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below. |
| <b>Stability &amp; Storage</b> | Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied                          |

## 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<sup>++</sup>-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.

## PRODUCT SPECIFIC NOTICES

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