Human/Mouse Neurexin 3β/NRXN3b Alexa Fluor® 700-conjugated Antibody

Antigen Affinity-purified Polyclonal Sheep IgG
Catalog Number: AF5269N
100 µg

DESCRIPTION

Species Reactivity	Human/Mouse
Specificity	Detects human and mouse Neurexin 3/NRXN3 in Western blots.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant human Neurexin 3/NRXN3 Ser35-Thr357 Accession # NP_620426
Conjugate	Alexa Fluor 700 Excitation Wavelength: 675-700 nm Emission Wavelength: 723 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide *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.*

Western Blot	Optimal dilution of this antibody should be experimentally determined.
Immunohistochemistry	Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

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

BACKGROUND

The alpha and beta forms of Neurexins 1-3 are transmembrane neuronal glycoproteins which are transcribed from each of three NRXN genes that utilize alternate promoters. Like other Neurexins, the extracellular domain (ECD) of Neurexin 3α contains six LNS domains interspersed with three EGF-like domains, while that of Neurexin 3β contains only the sixth LNS domain and no EGF-like domains (1-3). Mature human Neurexin 3β is a 70 kDa glycosylated protein with a 528 amino acid (aa) ECD and a 56 aa cytoplasmic domain that contains a motif for binding PDZ scaffolding proteins (3-5). Within comparable regions of the ECD, human Neurexin 3β shares 99% aa sequence identity with mouse and rat Neurexin 3β. It shares 65% aa sequence identity with comparable regions of the ECD of human Neurexin 1β and 2β. Alternative splicing of human Neurexin 3β generates multiple isoforms. There are potentially soluble and secreted variants and some which contain a fibronectin type III-like domain (4, 6). Neurexin 3β is widely expressed in the brain where it binds the postsynaptic Neuroligins 1, 2, and 3 (6-9). Neurexin 3β may also be expressed in non-nervous tissues with a potentially cardiac-specific isoform (10). Human Neurexin 3β polymorphisms which affect the splicing pattern are associated with susceptibility to alcohol dependence (6). The Neurexin 3β genetic locus has been linked to opioid and nicotine addiction, and Neurexin 3β gene expression is up-regulated after short term exposure of mice to cocaine (11-13).

PRODUCT SPECIFIC NOTICES

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