

DESCRIPTION

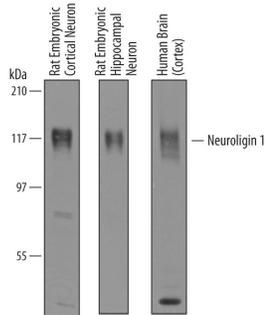
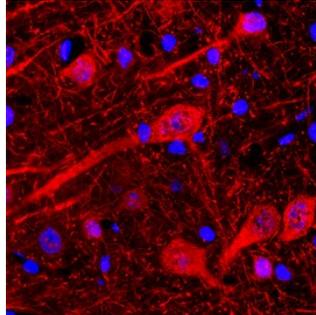
Species Reactivity	Human/Rat
Specificity	Detects recombinant rat Neuroigin 1/NLGN1 in direct ELISAs. Detects human and rat Neuroigin 1/NLGN1 in Western blots.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant rat Neuroigin 1/NLGN1 Gln46-Leu696 Accession # Q62765
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
Western Blot	0.1 µg/mL	See Below
Immunohistochemistry	5-15 µg/mL	See Below

DATA

<p>Western Blot</p>  <p>Detection of Human and Rat Neuroigin 1/NLGN1 by Western Blot. Western blot shows lysates of rat embryonic cortical neurons, rat embryonic hippocampal neurons, and human brain (cortex) tissue. PVDF membrane was probed with 0.1 µg/mL of Sheep Anti-Rat Neuroigin 1/NLGN1 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF4340) followed by HRP-conjugated Anti-Sheep IgG Secondary Antibody (Catalog # HAF016). A specific band was detected for Neuroigin 1/NLGN1 at approximately 117 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 8.</p>	<p>Immunohistochemistry</p>  <p>Neuroigin 1/NLGN1 in Rat Brain. Neuroigin 1/NLGN1 was detected in perfusion fixed frozen sections of rat brain (cortex) using Sheep Anti-Rat Neuroigin 1/NLGN1 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF4340) at 10 µg/mL overnight at 4 °C. Tissue was stained using the NorthernLights™ 557-conjugated Anti-Sheep IgG Secondary Antibody (red; Catalog # NL010) and counterstained with DAPI (blue). Specific staining was localized to neuronal cell bodies, processes, and dendritic spines. View our protocol for Fluorescent IHC Staining of Frozen Tissue Sections.</p>
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PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.2 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

Neuroigin 1 (neurexin ligand 1; also NL1) is a 116 kDa member of the type-B carboxyesterase/lipase family of proteins. It is postsynaptically expressed on neurons and initiates excitatory presynapse maturation through binding to a select isoform of β-neurexin. Mature rat NL1 is 798 amino acids (aa) in length. It is expressed as a type I transmembrane glycoprotein that contains a 652 aa extracellular domain (ECD) (aa 46-697) and a 125 aa cytoplasmic tail. The ECD possesses a nonfunctional esterase homology domain (aa 54-612). Rat NL1 has at least three alternate splice forms. One shows a deletion of aa 165-184 plus aa 298-306, while the remaining two show deletions of either aa 165-184, or aa 298-306, respectively. Rat ECD shares 97% and 93% aa identity with mouse and human NL1 CED, respectively.