

#### DESCRIPTION

<b>Species Reactivity</b>	Rat
<b>Specificity</b>	Detects rat Neurexophilin-1/NXPH-1 in direct ELISAs and Western blots.
<b>Source</b>	Polyclonal Goat IgG
<b>Purification</b>	Antigen Affinity-purified
<b>Immunogen</b>	Mouse myeloma cell line NS0-derived recombinant rat Neurexophilin-1/NXPH-1 Ala22-Gly271 Accession # Q63366
<b>Conjugate</b>	Alexa Fluor 488 Excitation Wavelength: 488 nm Emission Wavelength: 515-545 nm
<b>Formulation</b>	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.

#### 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

Neurexophilin-1 (NXPH-1) is one of at least four vertebrate neuropeptide-like secreted glycoproteins in the neurexophilin family (1, 2). The 29 kDa, 271 amino acid (aa) NXPH-1 sequence contains a 22 aa signal peptide, a 94 aa propeptide that is cleaved at a basic motif, and a 115 aa mature protein that contains three potential N-glycosylation sites in the N-terminal portion and six conserved cysteines in the C-terminal portion (1). Mature rat NXPH-1 shares 99%, 99%, 99%, 96% and 84% aa identity with mouse, human, bovine, opossum and zebrafish NXPH-1, respectively. NXPH-1 is expressed selectively in subpopulations of neurons within the cerebral cortex, cerebellum and olfactory bulb that are thought likely to be inhibitory interneurons (2, 3). NXPH-3 is the neurexophilin most similar to NXPH-1, sharing 69% aa identity within the mature region. Expression of NXPH-1 and NXPH-3 does not appear to coincide, but both are tightly bound extracellular ligands of  $\alpha$ -neurexins, synaptic transmembrane molecules that are essential for calcium-triggered neurotransmitter release (1, 4, 5). Genetic deletion of NXPH-1 and/or NXPH-3 produces no anatomical effect, although mice lacking NXPH-3 show defects in motor coordination (4, 6). Of the other known neurexophilins, NXPH-2 is not expressed in rodents, and NXPH-4 does not bind  $\alpha$ -neurexins (1, 4).

#### PRODUCT SPECIFIC NOTICES

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