

**DESCRIPTION**

<b>Species Reactivity</b>	Mouse
<b>Specificity</b>	Detects mouse Netrin-4 in direct ELISAs and Western blots. In direct ELISAs and Western blots, this antibody shows approximately 25% cross-reactivity with recombinant human Netrin-4 and less than 1% cross-reactivity with recombinant mouse Netrin-1, recombinant chicken Netrin-2, and recombinant mouse Netrin-G1a.
<b>Source</b>	Polyclonal Goat IgG
<b>Purification</b>	Antigen Affinity-purified
<b>Immunogen</b>	Mouse myeloma cell line NS0-derived recombinant mouse Netrin-4 Leu19-Val628 Accession # Q9JI33
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 µm filtered solution in PBS.

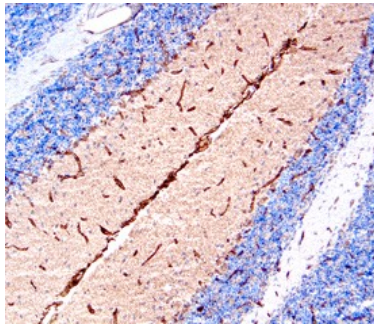
**APPLICATIONS**

**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.

	<b>Recommended Concentration</b>	<b>Sample</b>
<b>Western Blot</b>	0.1 µg/mL	Recombinant Mouse Netrin-4 (Catalog # 1132-N4)
<b>Immunohistochemistry</b>	5-15 µg/mL	See Below
<b>Blockade of Receptor-ligand Interaction</b>	In a functional ELISA, 0.08-0.24 µg/mL of this antibody will block 50% of the binding of 10 ng/mL of Recombinant Mouse Netrin-4 (Catalog # 1132-N4) to immobilized Recombinant Rat UNC5H2 Fc Chimera (Catalog # 1006-UN) coated at 2 µg/mL (100 µL/well). At 10 µg/mL, this antibody will block >90% of the binding.	

**DATA**

**Immunohistochemistry**



**Netrin-4 in Mouse Brain.** Netrin-4 was detected in perfusion fixed frozen sections of mouse brain (cerebellum) using 15 µg/mL Goat Anti-Mouse Netrin-4 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF1132) overnight at 4 °C. Tissue was stained with the Anti-Goat HRP-DAB Cell & Tissue Staining Kit (brown; Catalog # CTS008) and counterstained with hematoxylin (blue). View our protocol for [Chromogenic IHC Staining of Frozen Tissue Sections](#).

**PREPARATION AND STORAGE**

<b>Reconstitution</b>	Reconstitute at 0.2 mg/mL in sterile PBS.
<b>Shipping</b>	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
<b>Stability &amp; Storage</b>	<b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b> <ul style="list-style-type: none"> <li>● 12 months from date of receipt, -20 to -70 °C as supplied.</li> <li>● 1 month, 2 to 8 °C under sterile conditions after reconstitution.</li> <li>● 6 months, -20 to -70 °C under sterile conditions after reconstitution.</li> </ul>

**BACKGROUND**

Netrins/UNC-6 (netr: Sanskrit for "one who guides") are a family of laminin-related small proteins that are involved in neurite outgrowth and axon guidance. Netrins binds to the DCC and UNC5 family of receptors to attract or repel axons. Mouse Netrin-4, also known as  $\beta$ -Netrin, is synthesized as a 629 amino acid (aa) precursor that contains a 19 aa signal sequence, a 428 aalaminin-related region containing an N-terminal laminin globular domain (domain VI) followed by 3 laminin EGF-like repeats, and a 182 aa C domain rich in basic aa residues that serves as a heparin binding site. Netrin-4 has been reported to exist as both a monomer and a dimer. The dimeric form was reported to be the less active of the two. Mouse Netrin-4 shares 31%, 29%, and 25% aa sequence identity with mouse Netrin-1, -3, and -G1a, respectively. It also shares 89% aa sequence identity with human Netrin-4. Netrin-4 has widespread expression, occurring in nervous tissues such as embryonic floor plate and postnatal neurons such as cerebellar granule cells and hippocampal pyramidal cells. It also is found in non-neural tissues such as adult Bowman's capsule and medullary tubular epithelium in kidney, and embryonic pancreatic and intestinal epithelium, plus cells of the ureteric bud. Netrin-4 expression is often associated with basement membrane. Netrin-4 has been shown to initiate axon outgrowth from olfactory bulb explants (1-7).

**References:**

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