Mouse Netrin-1 Antibody

Antigen Affinity-purified Polyclonal Goat IgG
Catalog Number: AF1109

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse Netrin-1 in direct ELISAs and Western blots. In direct ELISAs, approximately 10% cross-reactivity with recombinant chicken (rch) Netrin-1 is observed and less than 1% cross-reactivity with recombinant mouse (rm) Netrin-G1a, rchNetrin-2 and rmNetrin-4 is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant mouse Netrin-1 Val22-Ala603 Accession # AAC52971
Endotoxin Level	<0.1 EU per 1 µg of the antibody by the LAL method.
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details.

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	Recombinant Mouse Netrin-1 (Catalog # 1109-N1)
Blockade of Receptor-ligand Interaction	In a functional ELISA, 1-3 µg/mL of this antibody will block 50% of the binding of 100 ng/mL of Recombinant Mouse Netrin-1 (Catalog # 1109-N1) to immobilized Recombinant Rat UNC5H2 Fc Chimera (Catalog # 1006-UN) coated at 5 µg/mL (100 µL/well). At 40 µg/mL, this antibody will block >90% of the binding.	

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.
Stability & Storage	**Use a manual defrost freezer and avoid repeated freeze-thaw cycles.** ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month from date of receipt, 2 to 8 °C, reconstituted. ● 6 months from date of receipt, -20 to -70 °C, reconstituted.

BACKGROUND

Mouse Netrin-1 is a member of the laminin-related family of axon-guidance molecules, collectively referred to as Netrins (*netr* is Sanskrit for “one who guides”). The molecule’s cDNA encodes a 603 amino acid (aa) protein precursor that has structural similarity to the N-terminal γ-chain of laminin. It contains a globular domain, three EGF repeats, and a C-terminal heparin-binding domain. Mouse Netrin-1 shares 52% aa identity with mouse Netrin-3, and 98% and 87% aa identity with human and chicken Netrin-1, respectively. Cells reported to express Netrin-1 in the embryo include cells of the floor plate, ventricular zone of the spinal cord, the brain, the ganglionic eminence, and parts of the diencephalon. Netrins were first identified for promoting the outgrowth of commissural axons and are also involved in helping migrating cells and axonal growth cones navigate to their targets. Netrins can provide both attractive and repulsive cues to neurons, depending on the receptors present and cellular context. In the adult, Netrin-1 is likely involved in axon regeneration in peripheral nerves. Netrin-1 has also been shown to be expressed outside of the nervous system and to be involved in development of such tissues as the pancreas, lung, bowel, bone and mammary gland. In non-neural organogenesis, Netrin-1 provides an adhesive rather than guidance function. The DCC (deleted in colorectal carcinoma), Neogenin, the UNC5 family of receptors, and the adenosine A2b receptors are proposed to be functional receptors for Netrin-1 (1-7).

References:

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