

Rabbit Polyclonal Anti-Netrin 1 antibody

Catalog Number: NTRN-101AP

Lot Number:

General Information

Product	Netrin 1 Antibody Affinity Purified
Accession #	Uniprot: O95631 NCBI: NP_004813.2
Verified Applications	ELISA, WB
Species Cross Reactivity	Human
Host	Rabbit
Immunogen	Synthetic peptide corresponding to unique amino acid sequence on Ntrn1 protein.
Alternative Nomenclature	epididymis tissue protein Li 131P antibody, Netrin 1-like antibody, NTN1 antibody, NTN1L antibody, Unc6 antibody

Physical Properties

Quantity	100 µg
Volume	200 µl
Form	Affinity Purified Immunoglobulins
Immunoglobulin & Concentration	0.62-0.68 mg/ml IgG in antibody stabilization buffer
Storage	Store at -20°C for long term storage.

Recommended Dilutions

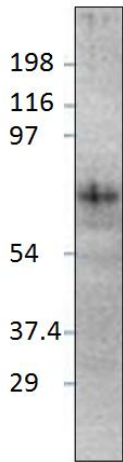
DOT Blot	1:10,000
ELISA	1:10,000
Western Blot	1:500

Related Products

Catalog

FITC-Conjugated	NTRN-FITC
Antigenic Blocking Peptide	P-NTRN
Western Blot Positive Control	PC-NTRN
DCC Antibody (Netrin Receptor)	DCCR-101AP

Application Verification:



WB of NTRN-101AP with PC-NTRN. 1:500 antibody, dilution in DiluObuffer.

Dilutions are for reference only. Applications not listed above are not necessarily precluded from working with this antibody. Investigators intending to use an application that has not been verified can request a complimentary sample.

Overview:

Netrin-1 is a diffuse protein made by the floor plate cells that belongs to the Netrin family of proteins. The Netrin family of proteins guide axons towards or away from the midline of the developing nervous system (1). In mammals, Netrins act as ligands for DCC (deleted in colorectal cancer) receptor and the UNC5 receptor homologues: UNC5A-UNC5D. DCC mediates chemoattraction whereas repulsion is mediated by UNC5 homologues and, in some cases, DCC (2). Netrin-1, located at human chromosome 17p13-p12, attracts spinal commissural axons and repels trochlear axons in vitro. In mice, deficiencies in Netrin-1 led to defects in spinal commissural axon projections (3). Netrin-1 also acts as an early ventral spinal cord-derived chemorepellent for dorsal root ganglion (DRG) axons. In the dorsal and intermediate spinal cord, it prevents DRG axons from being directed towards the dorsal spinal cord (4). Netrin-1 and its associated receptors play a key role cell death and tumor formation.

Netrin-1 receptor/Netrin pair induces apoptosis in cultured cells and also acts as regulators of tumor development (5, 6). These properties of Netrin-1 have been implicated in colorectal tumorigenesis by regulating apoptosis (6). In the embryo, Netrin-1 is widely expressed in the developing nervous system and in mesodermal tissues. In adults, it is highly expressed in heart, small intestine, colon, liver and prostate. It is also expressed in brain tumors and neuroblastomas. Netrin-1 is approximately a 73kDa protein (604 amino acids).

The Netrin-1 selective antibodies were generated against synthetic peptide taken near C-terminal end of the Netrin-1 protein. Netrin-1 antibodies are affinity purified over immobilized antigen based chromatography, and the purified immunoglobulins are stabilized in antibody stabilization buffer. Netrin-1 positive control (PC-NTRN) are available in ready-to-use SDS sample buffer and label a ~73 kDa protein. Netrin synthetic peptide (P-NTRN) is also available for immunocompetition/immunodepletion assays. Antibodies can be conjugated with fluorescent probes or secondary enzymes at a nominal charge.

References:

1. PuschelPuschel AW. Divergent properties of mouse netrins. *Mech Dev.* May 1999; 83(1-2):65-75.
2. Moore SW, Tessier-Lavigne M, Kennedy TE. Netrins and their receptors. *Adv Exp Med Biol.* 2007; 621:17-31.
3. Serafini T, Colamarino SA, Leonardo ED, Wang H, Beddington R, Skarnes WC, Tessier-Lavigne M. Netrin-1 is required for commissural axon guidance in the developing vertebrate nervous system. *Cell.* 13 December 1996; 87(6):1001-1014.
4. Masuda T, Watanabe K, Sakuma C, Ikenaka K, Yaginuma H. Netrin-1 acts as a repulsive guidance cue for sensory axonal projections toward the spinal cord. *J Neuroscience.* 8 October 2008; 28(41):10380-10385.
5. Williams ME, Lu X, McKenna WL, Washington R, Boyette A, Strickland P, Dillon A, Kaprielian Z, Tessier-Lavigne M, Hinck L. UNC5A promotes neuronal apoptosis during spinal cord development independent of netrin-1. *Nat Neurosci.* August 2006; 9(8):996-998.
6. Mehlen P, Lambi F. Role of netrin-1 and netrin-1 dependence receptors in colorectal cancers. *Br J Cancer.* 11 July 2005; 93(1):1-6.

* For users who may require large amounts of the products listed above, please inquire about bulk material discounts.
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