

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Netrin-4 in direct ELISAs and Western blots. In direct ELISAs and Western blots, no cross-reactivity with recombinant mouse (rm) Netrin-1, recombinant chicken (rch) Netrin-1, rchNetrin-2, or rmNetrin-G1a is observed.
Source	Monoclonal Mouse IgG _{2A} Clone # 191633
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Mouse myeloma cell line NS0-derived recombinant human Netrin-4 Val26-Lys628 Accession # Q9HB63
Conjugate	Alexa Fluor 594 Excitation Wavelength: 590 nm Emission Wavelength: 617 nm
Formulation	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

Shipping The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.

Stability & Storage Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

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 bind to the DCC and UNC5 family of receptors to attract or repel axons. Human Netrin-4 is synthesized as a 628 amino acid (aa) precursor that contains a 19 aa signal sequence, a 443 aa laminin-related region containing an N-terminal laminin globular domain (domain VI) followed by 3 laminin EGF-like repeats, and a 166 aa C-terminal domain rich in basic residues that serves as a heparin binding site. Unlike human Netrin-1 which is reminiscent of the laminin γ-chain, human Netrin-4 resembles the laminin β-chain. 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. Human Netrin-4 shares 31%, 29% and 25% aa sequence identity with human Netrin-1, 2 and G2, respectively; it shares 89% aa identity with mouse 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).

PRODUCT SPECIFIC NOTICES

This product is provided under an agreement between Life Technologies Corporation and R&D Systems, Inc, and the manufacture, use, sale or import of this product is subject to one or more US patents and corresponding non-US equivalents, owned by Life Technologies Corporation and its affiliates. The purchase of this product conveys to the buyer the non-transferable right to use the purchased amount of the product and components of the product only in research conducted by the buyer (whether the buyer is an academic or for-profit entity). The sale of this product is expressly conditioned on the buyer not using the product or its components (1) in manufacturing; (2) to provide a service, information, or data to an unaffiliated third party for payment; (3) for therapeutic, diagnostic or prophylactic purposes; (4) to resell, sell, or otherwise transfer this product or its components to any third party, or for any other commercial purpose. Life Technologies Corporation will not assert a claim against the buyer of the infringement of the above patents based on the manufacture, use or sale of a commercial product developed in research by the buyer in which this product or its components was employed, provided that neither this product nor any of its components was used in the manufacture of such product. For information on purchasing a license to this product for purposes other than research, contact Life Technologies Corporation, Cell Analysis Business Unit, Business Development, 29851 Willow Creek Road, Eugene, OR 97402, Tel: (541) 465-8300. Fax: (541) 335-0354.