

## DESCRIPTION

|                           |                                                                                                                                                                                                                                                                             |
|---------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Species Reactivity</b> | Mouse                                                                                                                                                                                                                                                                       |
| <b>Specificity</b>        | Detects mouse Netrin-G1a in direct ELISAs and Western blots. In Western blots, no cross-reactivity with recombinant chicken (rch) Netrin-1, recombinant mouse Netrin-1, rchNetrin-2, or recombinant human Netrin-4 is observed.                                             |
| <b>Source</b>             | Monoclonal Rat IgG <sub>2B</sub> Clone # 229722                                                                                                                                                                                                                             |
| <b>Purification</b>       | Protein A or G purified from hybridoma culture supernatant                                                                                                                                                                                                                  |
| <b>Immunogen</b>          | <i>S. frugiperda</i> insect ovarian cell line Sf 21-derived recombinant mouse Netrin-G1a His29-Gly513<br>Accession # Q8R4G0                                                                                                                                                 |
| <b>Conjugate</b>          | Alexa Fluor 532<br>Excitation Wavelength: 534 nm<br>Emission Wavelength: 553 nm                                                                                                                                                                                             |
| <b>Formulation</b>        | Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide<br><br>*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. Mouse Netrin-G1a is synthesized as a 539 amino acid (aa) precursor with an 18 aa signal sequence, a 399 aa laminin-related region containing an N-terminal laminin globular domain (domain VI) followed by 3 laminin EGF-like repeats, and a 122 aa C domain with a hydrophobic signal for glycosyl phosphatidylinositol (GPI) lipid linkage. Unlike classical Netrins which have a C domain rich in basic aa residues that serves as a heparin binding site, Netrin-G1a is predominantly anchored on the cell surface via GPI linkages. By alternative splicing, at least six isoforms for Netrin-G1 have been identified. All G1a variants (G1b through G1f) are shorter than G1a and lack one or more of the EGF-like domains. Mouse Netrin-G1a shares 27%, 26%, and 31% aa sequence identity with mouse Netrins-1, 3 and 4, respectively. It also shares 60% aa identity with another GPI-anchored mouse Netrin-G2a. Although a human homolog of mouse Netrin-G1a has not been reported, a human G1f that shares 97% aa sequence identity with mouse G1f has been cloned. Netrin-G1 has widespread expression, occurring in olfactory mitral cells, cells of the inferior colliculus (hearing), dorsal thalamus (behavior), and cells of the deep cerebellar nuclei and inferior olive (motion). The G-type Netrins are found only in vertebrates and are suggested to play a role in forming circuits associated with motor activity. Conditioned media containing myc-tagged Netrin-G1a proteins did not bind to cells transiently transfected with the Netrin receptors DCC, UNC5H1, UNC5H2, or UNC5H3 (1-4).

## 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.