Mouse Netrin-G1a Alexa Fluor® 594-conjugated Antibody

Monoclonal Rat IgG_{2B} Clone # 229722

Catalog Number: FAB1166T

100 µg

DESCRIPTION

Species Reactivity	Mouse
Specificity	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.
Source	Monoclonal Rat IgG_{2B} Clone # 229722
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	*S. frugiperda* insect ovarian cell line *Sf* 21-derived recombinant mouse Netrin-G1a His29-Gly513 Accession # Q8R4G0
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. 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

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