

netrin G2 (C-16): sc-51373

BACKGROUND

netrin G1 and netrin G2, also referred to as laminin-1 and laminin-2, are membrane bound axon guidance molecules involved in synaptic formation and maintenance. They comprise a subgroup within the UNC-6/netrin family. Both genes have been associated with schizophrenia involving single nucleotide polymorphisms. They are both expressed in the brain but G₁ is most predominantly expressed in the thalamus and G₂ is most predominantly expressed in the cortex and hippocampus. These two proteins differ from classical netrins by their failure to bind netrin receptors, the presence of a glycosyl phosphatidylinositol membrane anchor, and the generation of multiple isoforms. netrin G2 contains one laminin N-terminal domain and three laminin EGF-like domains. It selectively interacts with LRRC4 and this association may mediate cell adhesion. In addition, netrin G2 is significantly downregulated in bladder transitional cell carcinoma (TCC) and may be a putative tumor suppressor gene.

REFERENCES

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4. Meerabux, J.M., et al. 2005. Human netrin G1 isoforms show evidence of differential expression. *Genomics* 86: 112-116.
5. Aoki-Suzuki, M., et al. 2005. A family-based association study and gene expression analyses of netrin G1 and G2 genes in schizophrenia. *Biol. Psychiatry* 57: 382-393.
6. Kim, S., et al. 2006. NGL family PSD-95-interacting adhesion molecules regulate excitatory synapse formation. *Nat. Neurosci.* 9: 1294-1301.
7. Eastwood, S.L., et al. 2007. Decreased mRNA Expression of netrin G1 and netrin G2 in the temporal lobe in schizophrenia and bipolar disorder. *Neuropsychopharmacology*. 33: 933-945.
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CHROMOSOMAL LOCATION

Genetic locus: NTNG2 (human) mapping to 9q34.13; NtnG2 (mouse) mapping to 2 B.

SOURCE

netrin G2 (C-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of netrin G2 of human origin.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-51373 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

netrin G2 (C-16) is recommended for detection of netrin G2 isoform 1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

netrin G2 (C-16) is also recommended for detection of netrin G2 isoform 1 in additional species, including canine, bovine and porcine.

Suitable for use as control antibody for netrin G2 siRNA (h): sc-106296, Netrin G2 siRNA (m): sc-149918, netrin G2 shRNA Plasmid (h): sc-106296-SH, Netrin G2 shRNA Plasmid (m): sc-149918-SH, netrin G2 shRNA (h) Lentiviral Particles: sc-106296-V and Netrin G2 shRNA (m) Lentiviral Particles: sc-149918-V.

Molecular Weight of netrin G2: 60 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.


 MONOS
 Satisfaction
 Guaranteed

Try **netrin G2 (Y-18L): sc-100330**, our highly recommended monoclonal alternative to netrin G2 (C-16).