

# netrin G1 (P-16): sc-51370

## 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 G<sub>1</sub> is most predominantly expressed in the thalamus and G<sub>2</sub> is most predominantly expressed in the cortex. 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 G1 has at least nine isoforms, all of which are expressed in adult brain. Isoforms G1a, c, d, and e are also expressed in fetal brain. G1c and G1d are the most highly expressed netrin G1 isoforms. netrin G1 is involved in NMDA receptor function and may play a role in Rett syndrome (RTT), atypical autism, epilepsy and mental retardation.

## REFERENCES

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## RESEARCH USE

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

## CHROMOSOMAL LOCATION

Genetic locus: NTNG1 (human) mapping to 1p13.3; Ntng1 (mouse) mapping to 3 F3.

## SOURCE

netrin G1 (P-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of netrin G1 of human origin.

## 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-51370 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

netrin G1 (P-16) is recommended for detection of precursor and mature netrin G1 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 G1 (P-16) is also recommended for detection of precursor and mature netrin G1 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for netrin G1 siRNA (h): sc-72290, Netrin G1 siRNA (m): sc-149917, netrin G1 shRNA Plasmid (h): sc-72290-SH, Netrin G1 shRNA Plasmid (m): sc-149917-SH, netrin G1 shRNA (h) Lentiviral Particles: sc-72290-V and Netrin G1 shRNA (m) Lentiviral Particles: sc-149917-V.

Molecular Weight of netrin G1: 61 kDa.

## 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](http://www.scbt.com) or our catalog for detailed protocols and support products.