

netrin-5 (S-16): sc-248067

BACKGROUND

Netrin proteins are a family of laminin-related secreted proteins that provide guidance signals for axonal growth and cell migration during development. Netrin signaling is dependent on the concentration of calcium outside the cell and the level of PKA activity. In axonal cells, a reduction in PKA activity converts the responsiveness of the axons to the netrin proteins as the cells are repelled, rather than attracted, by the netrin gradient. Netrin-5, also known as NTN5 or netrin-1-like protein, is a 489 amino acid secreted protein that exists as 2 alternatively spliced isoforms. Containing three laminin EGF-like domains, and one NTR domain, netrin-5 is encoded by a gene that maps to human chromosome 19q13.33. Chromosome 19 consists of over 63 million bases, houses approximately 1,400 genes and is recognized for having the greatest gene density of the human chromosomes. It is the genetic home for a number of immunoglobulin (Ig) superfamily members, including the killer cell and leukocyte Ig-like receptors, a number of ICAMs, the CEACAM and PSG families, and Fc receptors (FcRs).

REFERENCES

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3. Trowsdale, J., et al. 2001. The genomic context of natural killer receptor extended gene families. *Immunol. Rev.* 181: 20-38.
4. Leeb, T. and Müller, M. 2004. Comparative human-mouse-rat sequence analysis of the ICAM gene cluster on HSA 19p13.2 and a 185-kb porcine region from SSC 2q. *Gene* 343: 239-244.
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6. Kennedy, T.E., et al. 2006. Axon guidance by diffusible chemoattractants: a gradient of netrin protein in the developing spinal cord. *J. Neurosci.* 26: 8866-8874.
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CHROMOSOMAL LOCATION

Genetic locus: NTN5 (human) mapping to 19q13.33; Ntn5 (mouse) mapping to 7 B4.

SOURCE

netrin-5 (S-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of netrin-5 of human origin.

STORAGE

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

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-248067 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

netrin-5 (S-16) is recommended for detection of netrin-5 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); non cross-reactive with other netrin family members.

netrin-5 (S-16) is also recommended for detection of netrin-5 in additional species, including canine and porcine.

Suitable for use as control antibody for netrin-5 siRNA (h): sc-97160, netrin-5 siRNA (m): sc-145561, netrin-5 shRNA Plasmid (h): sc-97160-SH, netrin-5 shRNA Plasmid (m): sc-145561-SH, netrin-5 shRNA (h) Lentiviral Particles: sc-97160-V and netrin-5 shRNA (m) Lentiviral Particles: sc-145561-V.

Molecular Weight of netrin-5 isoforms: 53/37 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.

RESEARCH USE

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

PROTOCOLS

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