SANTA CRUZ BIOTECHNOLOGY, INC.

SEMA3G (N-15): sc-103205

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Semaphorins are a family of cell surface and secreted proteins that are conserved from insects to humans. Members of this family of proteins are approximately 750 amino acids in length (including signal sequences) and are defined by a conserved extracellular "semaphorin" domain of approximately 500 amino acids containing 14-16 cysteines, blocks of conserved sequences and no obvious repeats. The transmembrane semaphorins are characterized by an additional 80 amino acid transmembrane domain and an 80-110 amino acid cytoplasmic domain. Secreted and cell-bound semaphorins chemically attract and repel the growth of neural axons, guiding the development of intricate networks of neural tissue. SEMA3G (semaphorin-3G), a member of the semaphorin family, is a 782 amino acid secreted protein containing one sema domain and an Ig-like C2-type (immunoglobulin-like) domain. SEMA3G has possible chemorepulsive activities for sympathetic axons and is encoded by a gene that maps to human chromosome 3p21.1.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: SEMA3G (human) mapping to 3p21.1; Sema3g (mouse) mapping to 14 B.

SOURCE

SEMA3G (N-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of SEMA3G 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-103205 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

SEMA3G (N-15) is recommended for detection of SEMA3G 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).

SEMA3G (N-15) is also recommended for detection of SEMA3G in additional species, including canine, bovine and porcine.

Suitable for use as control antibody for SEMA3G siRNA (h): sc-78531, SEMA3G siRNA (m): sc-153332, SEMA3G shRNA Plasmid (h): sc-78531-SH, SEMA3G shRNA Plasmid (m): sc-153332-SH, SEMA3G shRNA (h) Lentiviral Particles: sc-78531-V and SEMA3G shRNA (m) Lentiviral Particles: sc-153332-V.

Molecular Weight of SEMA3G: 87 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.

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.