SANTA CRUZ BIOTECHNOLOGY, INC.

SEMA4F (H-138): sc-135264

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. Secreted and cell-bound semaphorins chemically attract and repel the growth of neural axons, guiding the development of intricate networks of neural tissue. SEMA4F (semaphorin-4F), also known as SEMAM, SEMAW or PRO2353, is a 770 amino acid member of the semaphorin family. Localized to the membrane, SEMA4F is a single-pass type I protein that is involved in growth cone collapse of retinal ganglion-cell axons. SEMA4F is highly expressed in postnatal brain and lung and contains one immunoglobulin-like (Ig-like) domain, one PSI domain and one semaphorin domain. Two isoforms exist due to alternative splicing events.

CHROMOSOMAL LOCATION

Genetic locus: SEMA4F (human) mapping to 2p13.1; Sema4f (mouse) mapping to 6 C3.

SOURCE

SEMA4F (H-138) is a rabbit polyclonal antibody raised against amino acids 90-227 mapping within an internal region of SEMA4F 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.

STORAGE

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

APPLICATIONS

SEMA4F (H-138) is recommended for detection of Semaphorin-4F of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], 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).

SEMA4F (H-138) is also recommended for detection of Semaphorin-4F in additional species, including equine and porcine.

Suitable for use as control antibody for SEMA4F siRNA (h): sc-62996, SEMA4F siRNA (m): sc-62997, SEMA4F shRNA Plasmid (h): sc-62996-SH, SEMA4F shRNA Plasmid (m): sc-62997-SH, SEMA4F shRNA (h) Lentiviral Particles: sc-62996-V and SEMA4F shRNA (m) Lentiviral Particles: sc-62997-V.

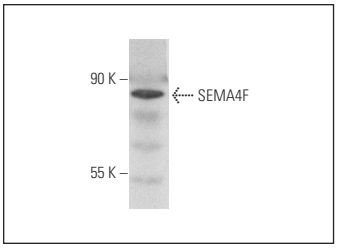
Molecular Weight of SEMA4F: 84 kDa.

Positive Controls: A-431 whole cell lysate: sc-2201.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



SEMA4F (H-138): sc-135264. Western blot analysis of SEMA4F expression in A-431 whole cell lysate.

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.