SANTA CRUZ BIOTECHNOLOGY, INC.

Slit3 (E-19): sc-31595

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Secreted leucine-rich repeat-containing proteins 1-3 (Slit1-3) are secreted glycoproteins that influence axonal guidance and mediate normal neural development by acting as high-affinity signaling ligands for the repulsive guidance receptor, roundabout (robo). Within the developing central nervous system (CNS) of different vertebrate systems, slit proteins are expressed in equivalent regions, suggesting a conserved function among vertebrate homologs. Slit is expressed in the midline of the central nervous system in both vertebrates and invertebrates, where it functions as a regulatory factor of mesodermal cell movement during gastrulation. Slit2 is a short range inhibitory guidance cue for retinal ganglion cell (RGC) axons that may mediate spatial progression of RGCs.

REFERENCES

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2. Holmes, G.P., et al. 1998. Distinct but overlapping expression patterns of two vertebrate Slit homologs implies functional roles in CNS development and organogenesis. Mech. Dev. 79: 57-72.
3. Brose, K., et al. 1999. Slit proteins bind robo receptors and have an evolutionarily conserved role in repulsive axon guidance. Cell 96: 795-806.
4. Hu, H. 1999. Chemorepulsion of neuronal migration by Slit2 in the developing mammalian forebrain. Neuron 23: 703-711.
5. Yuan, W., et al. 1999. The mouse Slit family: secreted ligands for Robo expressed in patterns that suggest a role in morphogenesis and axon guidance. Dev. Biol. 212: 290-306.
6. Niclou, S.P., et al. 2000. Slit2 is a repellent for retinal ganglion cell axons. J. Neurosci. 20: 4962-4974.
7. Erskine, L., et al. 2000. Retinal ganglion cell axon guidance in the mouse optic chiasm: expression and function of Robos and Slits. J. Neurosci. 20: 4975-4982.

CHROMOSOMAL LOCATION

Genetic locus: SLIT3 (human) mapping to 5q34; Slit3 (mouse) mapping to 11 A4.

SOURCE

Slit3 (E-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Slit3 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-31595 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Slit3 (E-19) is recommended for detection of Slit3 isoforms 1-3 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).

Slit3 (E-19) is also recommended for detection of Slit3 isoforms 1-3 in additional species, including equine, canine and porcine.

Suitable for use as control antibody for Slit3 siRNA (h): sc-42260, Slit3 siRNA (m): sc-42261, Slit3 shRNA Plasmid (h): sc-42260-SH, Slit3 shRNA Plasmid (m): sc-42261-SH, Slit3 shRNA (h) Lentiviral Particles: sc-42260-V and Slit3 shRNA (m) Lentiviral Particles: sc-42261-V.

Molecular Weight of Slit3: 130 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 o 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.