

Slit2 (E-20): sc-16619

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

1. Rothberg, J.M., et al. 1990. Slit: an extracellular protein necessary for development of midline glia and commissural axon pathways contains both EGF and LRR domains. *Genes Dev.* 4: 2169-2187.
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. 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.
5. Hu, H. 1999. Chemorepulsion of neuronal migration by Slit2 in the developing mammalian forebrain. *Neuron* 23: 703-711.

CHROMOSOMAL LOCATION

Genetic locus: SLIT2 (human) mapping to 4p15.31; Slit2 (mouse) mapping to 5 B3.

SOURCE

Slit2 (E-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Slit2 of human origin.

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-16619 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

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.

APPLICATIONS

Slit2 (E-20) is recommended for detection of Slit2 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).

Slit2 (E-20) is also recommended for detection of Slit2 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for Slit2 siRNA (h): sc-42258, Slit2 siRNA (m): sc-42259, Slit2 shRNA Plasmid (h): sc-42258-SH, Slit2 shRNA Plasmid (m): sc-42259-SH, Slit2 shRNA (h) Lentiviral Particles: sc-42258-V and Slit2 shRNA (m) Lentiviral Particles: sc-42259-V.

Molecular Weight of Slit2: 200/140/55-60 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.

SELECT PRODUCT CITATIONS

1. Anselmo, M.A., et al. 2003. Slit and robo: expression patterns in lung development. *Gene Expr. Patterns* 3: 13-19.
2. Mertsch, S., et al. 2008. Slit2 involvement in glioma cell migration is mediated by robo1 receptor. *J. Neurooncol.* 87: 1-7.
3. Dickinson, R.E., et al. 2008. Novel regulated expression of the Slit/robo pathway in the ovary: possible role during luteolysis in women. *Endocrinology* 149: 5024-5034.
4. London, N.R., et al. 2010. Targeting Robo4-dependent Slit signaling to survive the cytokine storm in sepsis and influenza. *Sci. Transl. Med.* 2: 23ra19.
5. Dai, C.F., et al. 2011. Expression and roles of Slit/Robo in human ovarian cancer. *Histochem. Cell Biol.* 135: 475-485.
6. Mitra, S., et al. 2012. Inactivation of SLIT2-ROBO1/2 pathway in pre-malignant lesions of uterine cervix: clinical and prognostic significances. *PLoS ONE* 7: e38342.


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Try **Slit2 (F-7): sc-514499**, our highly recommended monoclonal alternative to Slit2 (E-20).