

# Slit1 (G-17): sc-26597

## 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. 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: SLIT1 (human) mapping to 10q24.1; Slit1 (mouse) mapping to 19 C3.

## SOURCE

Slit1 (G-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of Slit1 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.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.

## 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-26597 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

Slit1 (G-17) is recommended for detection of Slit1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and 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).

Slit1 (G-17) is also recommended for detection of Slit1 in additional species, including canine and bovine.

Suitable for use as control antibody for Slit1 siRNA (h): sc-42256, Slit1 siRNA (m): sc-42257, Slit1 shRNA Plasmid (h): sc-42256-SH, Slit1 shRNA Plasmid (m): sc-42257-SH, Slit1 shRNA (h) Lentiviral Particles: sc-42256-V and Slit1 shRNA (m) Lentiviral Particles: sc-42257-V.

Molecular Weight of Slit1: 168 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.