

Slit3 (3C5): sc-293463

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.
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.

SOURCE

Slit3 (3C5) is a mouse monoclonal antibody raised against amino acids 1371-1470 representing partial length Slit3 of human origin.

PRODUCT

Each vial contains 100 µg IgG_{2a} kappa light chain 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

Slit3 (3C5) is recommended for detection of Slit3 of 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)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

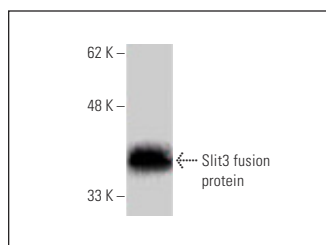
Suitable for use as control antibody for Slit3 siRNA (h): sc-42260, Slit3 shRNA Plasmid (h): sc-42260-SH and Slit3 shRNA (h) Lentiviral Particles: sc-42260-V.

Molecular Weight of Slit3: 130 kDa.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

DATA



Slit3 (3C5): sc-293463. Western blot analysis of human recombinant Slit3 fusion protein.

SELECT PRODUCT CITATIONS

1. Gao, L., et al. 2023. Targeting soluble epoxide hydrolase promotes osteogenic-angiogenic coupling via activating SLIT3/HIF-1α signalling pathway. *Cell Prolif.* E-published.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.