SANTA CRUZ BIOTECHNOLOGY, INC.

Slit2 (H-116): sc-28945

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

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

SOURCE

Slit2 (H-116) is a rabbit polyclonal antibody raised against amino acids 1383-1498 mapping near the C-terminus of Slit2 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.

RESEARCH USE

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

APPLICATIONS

Slit2 (H-116) 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), 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).

Slit2 (H-116) is also recommended for detection of Slit2 in additional species, including equine, canine, bovine, porcine and avian.

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 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.

SELECT PRODUCT CITATIONS

1. Wu, C.Y., et al. 2006. Tissue microarray-determined expression profiles of cyclooxygenase-2 in colorectal adenocarcinoma: association with clinicopathological parameters. Chin. J. Physiol. 49: 298-304.
2. Liu, J.B., et al. 2011. Expression of Slit2 and Robo1 after traumatic lesions of the rat spinal cord. Acta Histochem. 113: 43-48.
3. Dai, C.F., et al. 2011. Expression and roles of Slit/Robo in human ovarian cancer. Histochem. Cell Biol. 135: 475-485.
4. Alvarez, C., et al. 2013. Silencing of tumor suppressor genes RASSF1A, SLIT2, and WIF1 by promoter hypermethylation in hereditary breast cancer. Mol. Carcinog. 52: 475-487.
5. Zhao, X.C., et al. 2013. Isoflurane post-conditioning protects primary cultures of cortical neurons against oxygen and glucose deprivation injury via upregulation of Slit2/Robo1. Brain Res. 1537: 283-289.