SANTA CRUZ BIOTECHNOLOGY, INC.

Slit2 (F-7): sc-514499

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.

CHROMOSOMAL LOCATION

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

SOURCE

Slit2 (F-7) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 1441-1464 near the C-terminus of Slit2 of human origin.

PRODUCT

Each vial contains 200 µg IgM kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-514499 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

APPLICATIONS

Slit2 (F-7) is recommended for detection of Slit2 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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).

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 full length Slit2: 200 kDa.

Molecular Weight of Slit2 N-terminal cleavage fragment: 140 kDa.

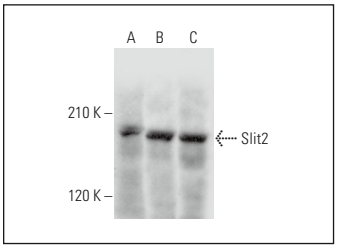
Molecular Weight of Slit2 C-terminal clevage fragments: 55-60 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, A549 cell lysate: sc-2413 or SH-SY5Y cell lysate: sc-3812.

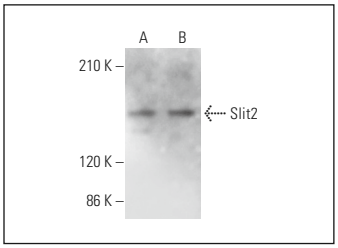
RECOMMENDED SUPPORT REAGENTS

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 L-Agarose: sc-2336 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



Slit2 (F-7): sc-514499. Western blot analysis of Slit2 expression in HeLa (**A**), A549 (**B**) and SH-SY5Y (**C**) whole cell lysates.



Slit2 (F-7): sc-514499. Western blot analysis of Slit2 expression in 3T3-L1 (**A**) and PC-12 (**B**) whole cell lysates. Detection reagent used: m-IgGκ BP-HRP: sc-516102.

SELECT PRODUCT CITATIONS

1. Tang, Y. and Zhou, X. 2019. Antagonistic effects of exogenous Slit2 on VEGF-induced choroidal endothelial cell migration and tube formation. Exp. Ther. Med. 17: 2443-2450.
2. Martinot, E. and Boerboom, D. 2021. Slit/Robo signaling regulates Leydig cell steroidogenesis. Cell Commun. Signal. 19: 8.
3. Tong, J., et al. 2022. The anti-inflammatory mechanism of SAHA in acute pancreatitis through HDAC5/SLIT2/Akt/β-catenin axis. Hum. Mol. Genet. 31: 2023-2034.
4. Jiang, T., et al. 2022. RNA m6A reader IGF2BP3 promotes metastasis of triple-negative breast cancer via SLIT2 repression. FASEB J. 36: e22618.

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.