

Slp2 (C-4): sc-393847

BACKGROUND

Slp2 (synaptotagmin-like protein 2), also known as exophilin-4, is a 895 amino acid peripheral membrane protein. Slp2 is believed to act as a Rab effector protein and may play a role in vesicle trafficking. Localized to the melanosome membrane and the intracytoplasmic membrane, Slp2 contains one Slp homology domain, two C2 domains and one Rab-binding domain. The Slp homology domain has been shown to bind specifically to the GTP-bound form of Rab 27a. Slp2 is expressed as two isoforms produced by alternative splicing.

REFERENCES

1. Fukuda, M., et al. 2001. Novel splicing isoforms of synaptotagmin-like proteins 2 and 3: identification of the Slp homology domain. *Biochem. Biophys. Res. Commun.* 283: 513-519.
2. Craxton, M. 2001. Genomic analysis of synaptotagmin genes. *Genomics* 77: 43-49.
3. Strom, M., et al. 2002. A family of Rab27-binding proteins. Melanophilin links Rab27a and Myosin Va function in melanosome transport. *J. Biol. Chem.* 277: 25423-25430.
4. Fukuda, M. 2003. Slp4-a/granuphilin-a inhibits dense-core vesicle exocytosis through interaction with the GDP-bound form of Rab27A in PC12 cells. *J. Biol. Chem.* 278: 15390-15396.
5. Yu, M., et al. 2007. Exophilin4/Slp2-a targets glucagon granules to the plasma membrane through unique Ca²⁺-inhibitory phospholipid-binding activity of the C2A domain. *Mol. Biol. Cell* 18: 688-696.
6. Kesari, A., et al. 2008. Dysferlin deficiency shows compensatory induction of Rab27A/Slp2a that may contribute to inflammatory onset. *Am. J. Pathol.* 173: 1476-1487.

CHROMOSOMAL LOCATION

Genetic locus: SYTL2 (human) mapping to 11q14.1.

SOURCE

Slp2 (C-4) is a mouse monoclonal antibody raised against amino acids 740-845 mapping near the C-terminus of Slp2 of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Slp2 (C-4) is available conjugated to agarose (sc-393847 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-393847 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-393847 PE), fluorescein (sc-393847 FITC), Alexa Fluor® 488 (sc-393847 AF488), Alexa Fluor® 546 (sc-393847 AF546), Alexa Fluor® 594 (sc-393847 AF594) or Alexa Fluor® 647 (sc-393847 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-393847 AF680) or Alexa Fluor® 790 (sc-393847 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

Slp2 (C-4) is recommended for detection of Slp2 of 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 Slp2 siRNA (h): sc-96277, Slp2 shRNA Plasmid (h): sc-96277-SH and Slp2 shRNA (h) Lentiviral Particles: sc-96277-V.

Molecular Weight of Slp2: 105 kDa.

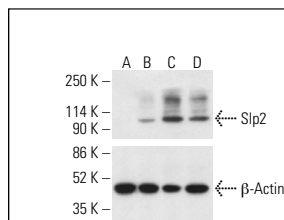
Positive Controls: Slp2 (h2): 293T Lysate: sc-370989 or chemically-treated NIH/3T3 whole cell lysate.

RECOMMENDED SUPPORT REAGENTS

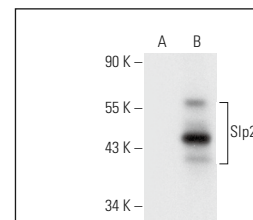
To ensure optimal results, the following support reagents are recommended:

- 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).
- 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



Slp2 (C-4): sc-393847. Western blot analysis of Slp2 expression in untreated (A) and chemically-treated (B, C, D) NIH/3T3 whole cell lysates. β-Actin (C4): sc-47778 used as loading control. Detection reagent used: m-IgG Fc BP-HRP: sc-525409.



Slp2 (C-4): sc-393847. Western blot analysis of Slp2 expression in non-transfected: sc-117752 (A) and human Slp2 transfected: sc-370989 (B) 293T whole cell lysates.

SELECT PRODUCT CITATIONS

1. Tanaka, M., et al. 2023. ASPSCR1::TFE3 orchestrates the angiogenic program of alveolar soft part sarcoma. *Nat. Commun.* 14: 1957.

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.