

# Slp2 siRNA (h): sc-96277

## 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

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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 Ca<sup>2+</sup>-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.
7. Menasche, G., et al. 2008. A newly identified isoform of Slp2a associates with Rab27a in cytotoxic T cells and participates to cytotoxic granule secretion. *Blood* 112: 5052-5062.
8. Holt, O., et al. 2008. Slp1 and Slp2-a localize to the plasma membrane of CTL and contribute to secretion from the immunological synapse. *Traffic* 9: 446-457.

## CHROMOSOMAL LOCATION

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

## PRODUCT

Slp2 siRNA (h) is a pool of 3 target-specific 19-25 nt siRNAs designed to knock down gene expression. Each vial contains 3.3 nmol of lyophilized siRNA, sufficient for a 10  $\mu$ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see Slp2 shRNA Plasmid (h): sc-96277-SH and Slp2 shRNA (h) Lentiviral Particles: sc-96277-V as alternate gene silencing products.

For independent verification of Slp2 (h) gene silencing results, we also provide the individual siRNA duplex components. Each is available as 3.3 nmol of lyophilized siRNA. These include: sc-96277A, sc-96277B and sc-96277C.

## STORAGE AND RESUSPENSION

Store lyophilized siRNA duplex at -20° C with desiccant. Stable for at least one year from the date of shipment. Once resuspended, store at -20° C, avoid contact with RNases and repeated freeze thaw cycles.

Resuspend lyophilized siRNA duplex in 330  $\mu$ l of the RNase-free water provided. Resuspension of the siRNA duplex in 330  $\mu$ l of RNase-free water makes a 10  $\mu$ M solution in a 10  $\mu$ M Tris-HCl, pH 8.0, 20 mM NaCl, 1 mM EDTA buffered solution.

## APPLICATIONS

Slp2 siRNA (h) is recommended for the inhibition of Slp2 expression in human cells.

## SUPPORT REAGENTS

For optimal siRNA transfection efficiency, Santa Cruz Biotechnology's siRNA Transfection Reagent: sc-29528 (0.3 ml), siRNA Transfection Medium: sc-36868 (20 ml) and siRNA Dilution Buffer: sc-29527 (1.5 ml) are recommended. Control siRNAs or Fluorescein Conjugated Control siRNAs are available as 10  $\mu$ M in 66  $\mu$ l. Each contain a scrambled sequence that will not lead to the specific degradation of any known cellular mRNA. Fluorescein Conjugated Control siRNAs include: sc-36869, sc-44239, sc-44240 and sc-44241. Control siRNAs include: sc-37007, sc-44230, sc-44231, sc-44232, sc-44233, sc-44234, sc-44235, sc-44236, sc-44237 and sc-44238.

## GENE EXPRESSION MONITORING

Slp2 (C-4): sc-393847 is recommended as a control antibody for monitoring of Slp2 gene expression knockdown by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) or immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG $\kappa$  BP-HRP: sc-516102 or m-IgG $\kappa$  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) Immunofluorescence: use m-IgG $\kappa$  BP-FITC: sc-516140 or m-IgG $\kappa$  BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

## RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor Slp2 gene expression knockdown using RT-PCR Primer: Slp2 (h)-PR: sc-96277-PR (20  $\mu$ l). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.

## RESEARCH USE

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

## PROTOCOLS

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