# Slac2-c (K-17): sc-66637



The Power to Question

#### **BACKGROUND**

Slac2-c (Slp homolog lacking C2 domains c), also known as SLAC2C or MYRIP (Myosin-VIIa- and Rab-interacting protein) is a Rab effector protein that is expressed in a variety of tissues including brain, heart, skin and liver. Found in the basal microvilli of retinal pigment cells and in pre- and post-synaptic areas in photoreceptor cells, Slac2-c is involved in melanosome transport and functions to link Rab 27a with the actin-based motor proteins Myosin Va and Myosin VIIa. Once linked, the Myosins are able to transport Rab 27a to retinal melanosomes, thereby linking the actin cytoskeleton with the melanosome membrane. Slac2-c contains one FYVE-type zinc finger and one Rab-binding domain and is able to bind actin-like proteins through its conserved C-terminal region. Additionally, Slac2-c is thought to regulate the final steps of Insulin exocytosis by mediating the interaction of secretory granules with the cortical actin cytoskeleton.

# **REFERENCES**

- El-Amraoui, A., Schonn, J.S., Küssel-Andermann, P., Blanchard, S., Desnos, C., Henry, J.P., Wolfrum, U., Darchen, F. and Petit, C. 2002. MyRIP, a novel Rab effector, enables myosin VIIa recruitment to retinal melanosomes. EMBO Rep. 3: 463-470.
- 2. Fukuda, M. and Kuroda, T.S. 2002. Slac2-c (synaptotagmin-like protein homologue lacking C2 domains-c), a novel linker protein that interacts with Rab27, myosin Va/VIIa, and actin. J. Biol. Chem. 277: 43096-43103.
- 3. Waselle, L., Coppola, T., Fukuda, M., Iezzi, M., El-Amraoui, A., Petit, C. and Regazzi, R. 2003. Involvement of the Rab27 binding protein Slac2c/MyRIP in Insulin exocytosis. Mol. Biol. Cell 14: 4103-4113.
- Kuroda, T.S. and Fukuda, M. 2005. Functional analysis of Slac2-c/MyRIP as a linker protein between melanosomes and myosin VIIa. J. Biol. Chem. 280: 28015-28022.
- Ivarsson, R., Jing, X., Waselle, L., Regazzi, R. and Renström, E. 2005.
  Myosin 5a controls Insulin granule recruitment during late-phase secretion. Traffic 6: 1027-1035.
- Kuroda, T.S. and Fukuda, M. 2005. Identification and biochemical analysis of Slac2-c/MyRIP as a Rab27A-, myosin Va/VIIa-, and actin-binding protein. Meth. Enzymol. 403: 431-444.
- 7. Klomp, A.E., Teofilo, K., Legacki, E. and Williams, D.S. 2007. Analysis of the linkage of MYRIP and MY07A to melanosomes by RAB27A in retinal pigment epithelial cells. Cell Motil. Cytoskeleton 64: 474-487.
- Lopes, V.S., Ramalho, J.S., Owen, D.M., Karl, M.O., Strauss, O., Futter, C.E. and Seabra, M.C. 2007. The ternary Rab27a-Myrip-Myosin VIIa complex regulates melanosome motility in the retinal pigment epithelium. Traffic 8: 486-499.
- Goehring, A.S., Pedroja, B.S., Hinke, S.A., Langeberg, L.K. and Scott, J.D. 2007. MyRIP anchors protein kinase A to the exocyst complex. J. Biol. Chem. 282: 33155-33167.

### **STORAGE**

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

#### **CHROMOSOMAL LOCATION**

Genetic locus: MYRIP (human) mapping to 3p22.1; Myrip (mouse) mapping to 9 F4.

# **SOURCE**

Slac2-c (K-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of Slac2-c of human origin.

#### **PRODUCT**

Each vial contains 200  $\mu g$  IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-66637 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

# **APPLICATIONS**

Slac2-c (K-17) is recommended for detection of Slac2-c of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

Slac2-c (K-17) is also recommended for detection of Slac2-c in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for Slac2-c siRNA (h): sc-63038, Slac2-c siRNA (m): sc-63039, Slac2-c shRNA Plasmid (h): sc-63038-SH, Slac2-c shRNA Plasmid (m): sc-63039-SH, Slac2-c shRNA (h) Lentiviral Particles: sc-63038-V and Slac2-c shRNA (m) Lentiviral Particles: sc-63039-V.

Molecular Weight of Slac2-c: 96 kDa.

# RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

# **RESEARCH USE**

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

# **PROTOCOLS**

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

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