

# Snapin (D-14): sc-34945

## BACKGROUND

Biogenesis of lysosome-related organelles complex-1 (BLOC-1) is a multisubunit protein necessary for biogenesis of specialized organelles of the endosomal-lysosomal system (such as melanosomes and platelet-dense granules). The complex consists of coiled-coil-forming proteins Snapin, Pallidin, Cappuccino, Muted, BLOS1, BLOS2 and BLOS3. The localization of these proteins varies as they can be cytoplasmic, peripheral membrane bound or anchored to the vesicular membrane. Snapin associates with the SNARE complex in neurons. Phosphorylation of Snapin increases its interaction with SNAP25 and affects exocytotic protein interactions. Snapin interacts with the N-terminus of regulator of G protein signaling 7 (RGS7), which is important in synaptic vesicle exocytosis.

## REFERENCES

1. Ilardi, J.M., et al. 1999. Snapin: a SNARE-associated protein implicated in synaptic transmission. *Nat. Neurosci.* 2: 119-124.
2. Hunt, R.A., et al. 2003. Snapin interacts with the N-terminus of regulator of G protein signaling 7. *Biochem. Biophys. Res. Commun.* 303: 594-549.
3. Buxton, P., et al. 2003. Identification and characterization of Snapin as a ubiquitously expressed SNARE-binding protein that interacts with SNAP23 in non-neuronal cells. *Biochem. J.* 375: 433-440.
4. Starcevic, M., et al. 2004. Identification of Snapin and three novel proteins (BLOS1, BLOS2, and BLOS3/reduced pigmentation) as subunits of biogenesis of lysosome-related organelles complex-1 (BLOC-1). *J. Biol. Chem.* 279: 28393-28401.
5. Chou, J.L., et al. 2004. Regulation of type VI adenylyl cyclase by Snapin, a SNAP25-binding protein. *J. Biol. Chem.* 279: 46271-46279.
6. Chen, M., et al. 2005. A novel role for Snapin in dendrite patterning: interaction with cypin. *Mol. Biol. Cell* 16: 5103-5114.

## CHROMOSOMAL LOCATION

Genetic locus: SNAPAP (human) mapping to 1q21.3; Snapap (mouse) mapping to 3 F1.

## SOURCE

Snapin (D-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Snapin 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.

Blocking peptide available for competition studies, sc-34945 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## STORAGE

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

## APPLICATIONS

Snapin (D-14) is recommended for detection of Snapin 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).

Snapin (D-14) is also recommended for detection of Snapin in additional species, including equine, canine and porcine.

Suitable for use as control antibody for Snapin siRNA (h): sc-45545, Snapin siRNA (m): sc-45546, Snapin shRNA Plasmid (h): sc-45545-SH, Snapin shRNA Plasmid (m): sc-45546-SH, Snapin shRNA (h) Lentiviral Particles: sc-45545-V and Snapin shRNA (m) Lentiviral Particles: sc-45546-V.

Molecular Weight of Snapin: 15 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) or donkey anti-goat IgG-TR: sc-2783 (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](http://www.scbt.com) or our catalog for detailed protocols and support products.