

# SCAMP1 (V-18): sc-13616

## BACKGROUND

Secretory carrier membrane proteins (SCAMPs) are components of the post Golgi membranes and are involved in endocytosis, vesicle recycling and membrane trafficking. The structural features of SCAMPs include multiple N-terminal NPF repeats and four highly conserved transmembrane regions. These NPF repeats frequently interact with EH domain proteins and aid in the budding of transport vesicles from the plasma membrane or the Golgi complex. Endocytic budding at the plasma membrane and vesicle budding at the trans-Golgi complex facilitates binding of SCAMP proteins to EH domain proteins. SCAMPs exist as distinct but related proteins that include SCAMP1, SCAMP2, and SCAMP3. Tyrosine-phosphorylation by the epidermal growth factor-receptor of SCAMP1 and SCAMP3 suggests that SCAMPs are regulated by phosphorylation. Although SCAMPs are ubiquitously expressed throughout all tissue, in neural tissue the synaptic vesicles express a particularly high concentration of SCAMP1.

## REFERENCES

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- Laurie, S.M., et al. 1993. The glucose transporter GluT4 and secretory carrier membrane proteins (SCAMPs) colocalize in rat adipocytes and partially segregate during Insulin stimulation. *J. Biol. Chem.* 268: 19110-19117.
- Wu, T.T. and Castle, J.D. 1997. Evidence for colocalization and interaction between 37 and 39 kDa isoforms of secretory carrier membrane proteins (SCAMPs). *J. Cell Sci.* 110: 1533-1541.
- DeBeer, T., et al. 1998. Structure and Asn-Pro-Phe binding pocket of the Eps15 homology domain. *Science* 281: 1357-1360.
- Paoluzi, S., et al. 1998. Recognition specificity of individual EH domains of mammals and yeast. *EMBO J.* 17: 6541-6550.
- Wu, T.T. and Castle, J.D. 1998. Tyrosine phosphorylation of selected secretory carrier membrane proteins, SCAMP1 and SCAMP3, and association with the EGF receptor. *Mol. Biol. Cell* 9: 1661-1674.

## CHROMOSOMAL LOCATION

Genetic locus: SCAMP1 (human) mapping to 5q14.1; Scamp1 (mouse) mapping to 13 D1.

## SOURCE

SCAMP1 (V-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of SCAMP1 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-13616 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

SCAMP1 (V-18) is recommended for detection of SCAMP1 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

SCAMP1 (V-18) is also recommended for detection of SCAMP1 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for SCAMP1 siRNA (h): sc-41290, SCAMP1 siRNA (m): sc-41291, SCAMP1 shRNA Plasmid (h): sc-41290-SH, SCAMP1 shRNA Plasmid (m): sc-41291-SH, SCAMP1 shRNA (h) Lentiviral Particles: sc-41290-V and SCAMP1 shRNA (m) Lentiviral Particles: sc-41291-V.

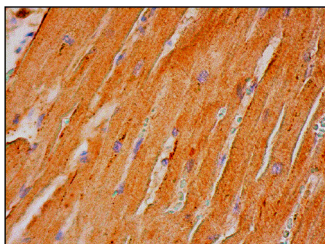
Molecular Weight of SCAMP1: 37 kDa.

Positive Controls: mouse brain extract: sc-2253.

## 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. 3) Immunohistochemistry: use ImmunoCruz™: sc-2053 or ABC: sc-2023 goat IgG Staining Systems.

## DATA



SCAMP1 (V-18): sc-13616. Immunoperoxidase staining of formalin fixed, paraffin-embedded human heart muscle tissue showing cytoplasmic staining of myocytes.

## 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.