SANTA CRUZ BIOTECHNOLOGY, INC.

SCAMP5 (W-12): sc-137747

BACKGROUND

Secretory carrier membrane proteins (SCAMPs) are components of post Golgi membranes that are invovled 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. SCAMP5 (secretory carrier-associated membrane protein 5) is a 235 amino acid multi-pass membrane protein of the Golgi apparatus that exists as three alternatively spliced isoforms. Expressed in bone marrow, trachea, adrenal gland, brain, thyroid, stomach, lymph node and spinal cord, SCAMP5 plays a role in calcium-dependent exocytosis of certain cytokines, including RANTES.

REFERENCES

1. Paoluzi, S., et al. 1998. Recognition specificity of individual EH domains of mammals and yeast. EMBO J. 17: 6541-6550.
2. Fernández-Chacón, R. and Südhof, T.C. 2000. Novel SCAMPs lacking NPF repeats: ubiquitous and synaptic vesicle-specific forms implicate SCAMPs in multiple membrane-trafficking functions. J. Neurosci. 20: 7941-7950.
3. Lin, P.J., et al. 2005. Secretory carrier membrane proteins interact and regulate trafficking of the organellar (Na^+,K^+)/H^+ exchanger NHE7. J. Cell Sci. 118: 1885-1897.
4. Noh, J.Y., et al. 2009. SCAMP5 links endoplasmic reticulum stress to the accumulation of expanded polyglutamine protein aggregates via endocytosis inhibition. J. Biol. Chem. 284: 11318-11325.
5. Han, C., et al. 2009. Human SCAMP5, a novel secretory carrier membrane protein, facilitates calcium-triggered cytokine secretion by interaction with SNARE machinery. J. Immunol. 182: 2986-2996.
6. Castermans, D., et al. 2010. SCAMP5, NBEA and AMISYN: three candidate genes for autism involved in secretion of large dense-core vesicles. Hum. Mol. Genet. 19: 1368-1378.

CHROMOSOMAL LOCATION

Genetic locus: SCAMP5 (human) mapping to 15q24.2; Scamp5 (mouse) mapping to 9 B.

SOURCE

SCAMP5 (W-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping within a C-terminal cytoplasmic domain of SCAMP5 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-137747 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

SCAMP5 (W-12) is recommended for detection of SCAMP5 isoforms 1 and 2 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, 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); non cross-reactive with other SCAMP family members.

SCAMP5 (W-12) is also recommended for detection of SCAMP5 isoforms 1 and 2 in additional species, including equine, canine, bovine, porcine and avian.

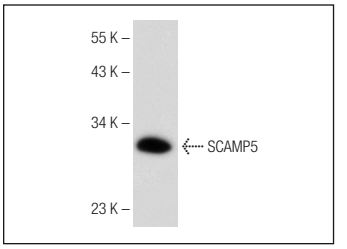
Suitable for use as control antibody for SCAMP5 siRNA (h): sc-90003, SCAMP5 siRNA (m): sc-153245, SCAMP5 shRNA Plasmid (h): sc-90003-SH, SCAMP5 shRNA Plasmid (m): sc-153245-SH, SCAMP5 shRNA (h) Lentiviral Particles: sc-90003-V and SCAMP5 shRNA (m) Lentiviral Particles: sc-153245-V.

Molecular Weight of SCAMP5 isoforms: 26/27/18 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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

DATA



SCAMP5 (W-12): sc-137747. Western blot analysis of SCAMP5 expression in MCF7 whole cell lysate.

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.