

SCAMP 1

Cat.No. 121 002; Polyclonal rabbit antibody, 200 µl antiserum (lyophilized)

Data Sheet

Reconstitution/ Storage	200 µl antiserum, lyophilized. For reconstitution add 200 µl H ₂ O, then aliquot and store at -20°C until use.
Applications	WB: 1 : 1000 (AP staining) IP: yes ICC: yes IHC: 1 : 1000 up to 1 : 5000 IHC-P/FFPE: not tested yet
Immunogen	Synthetic peptide corresponding to AA 2 to 15 from rat SCAMP1 (UniProt Id: P56603)
Reactivity	Reacts with: human (O15126), rat (P56603), mouse (Q8K021), hamster. Other species not tested yet.
Specificity	Specific for SCAMP 1.
matching control	121-0P

TO BE USED IN VITRO / FOR RESEARCH ONLY
NOT TOXIC, NOT HAZARDOUS, NOT INFECTIOUS, NOT CONTAGIOUS

SCAMPs (secretory carrier membrane proteins) are general markers of membranes that function in cell surface recycling such as secretory vesicles, pancreatic granules, etc. They have four conserved transmembrane regions (TMRs) suggesting a "core" function in membrane traffic. Five isoforms (SCAMP 1-5) have been described. SCAMP 1-3 contain NPF repeats that interact with EH-domain proteins which are involved in the budding of transport vesicles from the plasma membrane or the Golgi complex. SCAMP 4 and SCAMP 5 lack the NPF repeats. SCAMP 1-4 are ubiquitously expressed whereas SCAMP 5 is expressed exclusively in brain during late development.

Selected References SYSY Antibodies

Composition of isolated synaptic boutons reveals the amounts of vesicle trafficking proteins. Wilhelm BG, Mandat S, Truckenbrodt S, Kröhnert K, Schäfer C, Rammner B, Koo SJ, Claßen GA, Krauss M, Haucke V, Urlaub H, et al. Science (New York, N.Y.) (2014) 344(6187): 1023-8. **ICC, IHC, WB; tested species: mouse, rat**

SCAMP5 plays a critical role in synaptic vesicle endocytosis during high neuronal activity. Zhao H, Kim Y, Park J, Park D, Lee SE, Chang I, Chang S
The Journal of neuroscience : the official journal of the Society for Neuroscience (2014) 34(30): 10085-95. **WB; tested species: rat**

Evidence for glutamate as a neuroglial transmitter within sensory ganglia. Kung LH, Gong K, Adedoyin M, Ng J, Bhargava A, Ohara PT, Jasmin L
PloS one (2013) 8(7): e68312. **IHC**

The proteome of the presynaptic active zone: from docked synaptic vesicles to adhesion molecules and maxi-channels. Morciano M, Beckhaus T, Karas M, Zimmermann H, Volkandt W
Journal of neurochemistry (2009) 108(3): 662-75. **WB**

Molecular anatomy of a trafficking organelle. Takamori S, Holt M, Stenius K, Lemke EA, Grønborg M, Riedel D, Urlaub H, Schenck S, Brügger B, Ringler P, Müller SA, et al. Cell (2006) 127(4): 831-46. **WB**

Loss of the zymogen granule protein syncoilin affects pancreatic protein synthesis and transport but not secretion. Antonin W, Wagner M, Riedel D, Brose N, Jahn R
Molecular and cellular biology (2002) 22(5): 1545-54. **WB**

SNARE proteins are highly enriched in lipid rafts in PC12 cells: implications for the spatial control of exocytosis. Chamberlain LH, Burgoyne RD, Gould GW
Proceedings of the National Academy of Sciences of the United States of America (2001) 98(10): 5619-24. **WB**

The R-SNARE endobrevin/VAMP-8 mediates homotypic fusion of early endosomes and late endosomes. Antonin W, Holroyd C, Tikkanen R, Höning S, Jahn R
Molecular biology of the cell (2000) 11(10): 3289-98. **WB**

Distribution of synaptic vesicle proteins in the mammalian retina identifies obligatory and facultative components of ribbon synapses. Von Kriegstein K, Schmitz F, Link E, Südhof TC
The European journal of neuroscience (1999) 11(4): 1335-48. **IHC**

Selected General References

Novel SCAMPs lacking NPF repeats: ubiquitous and synaptic vesicle-specific forms implicate SCAMPs in multiple membrane-trafficking functions. Fernández-Chacón R, Südhof TC
The Journal of neuroscience : the official journal of the Society for Neuroscience (2000) 20(21): 7941-50.

SCAMP1 function in endocytosis. Fernández-Chacón R, Achiriloaie M, Janz R, Albanesi JP, Südhof TC
The Journal of biological chemistry (2000) 275(17): 12752-6.

Genetics of synaptic vesicle function: toward the complete functional anatomy of an organelle. Fernández-Chacón R, Südhof TC
Annual review of physiology (1999) 61: 753-76.

Three mammalian SCAMPs (secretory carrier membrane proteins) are highly related products of distinct genes having similar subcellular distributions. Singleton DR, Wu TT, Castle JD
Journal of cell science (1997) 110 (Pt 17): 2099-107.

The synaptic vesicle cycle: a cascade of protein-protein interactions. Südhof TC
Nature (1995) 375(6533): 645-53.

Synaptic vesicles and exocytosis. Jahn R, Südhof TC
Annual review of neuroscience (1994) 17: 219-46.

SCAMP 37, a new marker within the general cell surface recycling system. Brand SH, Castle JD
The EMBO journal (1993) 12(10): 3753-61.