

SNAP 25

Cat.No. 111 004; Polyclonal Guinea pig antibody, 100 µl antiserum (lyophilized)

Data Sheet

Reconstitution/ Storage	100 µl antiserum, lyophilized. For reconstitution add 100 µl H ₂ O, then aliquot and store at -20°C until use.
Applications	WB: 1 : 1000 up to 1 : 5000 (AP staining) IP: yes ICC: 1 : 500 IHC: not tested yet IHC-P/FFPE: not tested yet
Immunogen	Synthetic peptide corresponding to AA 192 to 206 from human SNAP25 (UniProt Id: P60880)
Reactivity	Reacts with: human (P60880), rat (P60881), mouse (P60879), hamster, chicken, goldfish, zebrafish. Other species not tested yet.
Specificity	Specific for SNAP 25.
matching control	111-0P

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

SNAP 25 (synaptosome-associated protein of 25 kDa) is a highly conserved protein anchored to the cytosolic face of membranes via palmitoyl side chains in the middle of the molecule. SNAP 25 is the target of Botulinum neurotoxin A and E which cleave off 9 and 26 amino acids, respectively, from the C-terminus.

SNAP 25 is part of the exocytotic fusion complex (v-SNARE) of neurons where it assembles with syntaxin 1 and synaptobrevin. It is abundantly localized on the neuronal plasmalemma and on recycling vesicles including synaptic vesicles. It is also expressed in neuroendocrine cells. There are two splice-variants, SNAP 25A and 25B.

Selected General References

- Mechanisms of synaptic vesicle exocytosis.
Lin RC, Scheller RH
Annual review of cell and developmental biology (2000) 16: 19-49.
- Regional and developmental brain expression patterns of SNAP25 splice variants.
Prescott GR, Chamberlain LH
BMC neuroscience (2011) 12: 35.
- Membrane fusion and exocytosis.
Jahn R, Südhof TC
Annual review of biochemistry (1999) 68: 863-911.
- A structural change occurs upon binding of syntaxin to SNAP-25.
Fasshauer D, Bruns D, Shen B, Jahn R, Brünger AT
The Journal of biological chemistry (1997) 272(7): 4582-90.
- The synaptic vesicle cycle: a cascade of protein-protein interactions.
Südhof TC
Nature (1995) 375(6533): 645-53.
- Genetic and electrophysiological studies of Drosophila syntaxin-1A demonstrate its role in nonneuronal secretion and neurotransmission.
Schulze KL, Broadie K, Perin MS, Bellen HJ
Cell (1995) 80(2): 311-20.
- Synaptic vesicles and exocytosis.
Jahn R, Südhof TC
Annual review of neuroscience (1994) 17: 219-46.
- Botulinum neurotoxin A selectively cleaves the synaptic protein SNAP-25.
Blasi J, Chapman ER, Link E, Binz T, Yamasaki S, De Camilli P, Südhof TC, Niemann H, Jahn R
Nature (1993) 365(6442): 160-3.