

## SNAP 25

Cat.No. 111-0P; control peptide, 100 µg peptide (lyophilized)

### Data Sheet

Reconstitution/ Storage	100 µg peptide, lyophilized. For reconstitution add 100 µl H <sub>2</sub> O to get a 1mg/ml solution in PBS. Then aliquot and store at -20°C until use. Control peptides should also be stored at -20°C when still lyophilized!
Immunogen	Synthetic peptide corresponding to AA 192 to 206 from human SNAP25 (UniProt Id: P60880)
Recommended dilution	Optimal concentrations should be determined by the end-user.
matching antibodies	111 002, 111 004
Remarks	This control peptide consists of the synthetic peptide (IDEANQRATKMLGSG) that has been used for immunization. It has been tested in preadsorption experiments and blocks efficiently and specifically the corresponding signal in Western blots. The amount of peptide needed for efficient blocking depends on the titer and on the affinity of the antibody to the antigen.

**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.