

## SNAP 25

Cat.No. 111 111BT; Monoclonal mouse antibody, 50 µg purified IgG (lyophilized)

### Data Sheet

|                        |   |
|------------------------|---|
| Reconstitution/Storage | 50 µg purified IgG, lyophilized, biotin-labeled. . For reconstitution add 50 µl H <sub>2</sub> O to get a 1mg/ml solution in PBS. Then aliquot and store at -20°C until use.  |
| Applications           | <b>WB:</b> 1 : 10000 (AP staining)<br><b>IP:</b> yes (see remarks)<br><b>ICC:</b> 1 : 100 up to 1 : 500<br><b>IHC:</b> 1 : 200<br><b>IHC-P/FFPE:</b> not tested yet<br><b>ELISA:</b> yes (see remarks)  |
| Label                  | biotin  |
| Clone                  | 71.2  |
| Subtype                | IgG1 (κ light chain)  |
| Immunogen              | Recombinant protein corresponding to AA 1 to 206 from rat SNAP25B (UniProt Id: P60881-1)  |
| Epitop                 | Epitop: AA 1 to 20 from rat SNAP25B (UniProt Id: P60881-1)  |
| Reactivity             | Reacts with: human (P60880), rat (P60881), mouse (P60879), mammals.<br>No signal: zebrafish.<br>Other species not tested yet.   |
| Specificity            | Specific for SNAP 25.   |
| Remarks                | <b>IP:</b> Immunoprecipitation not quantitative, appears to depend on the binding status of the protein.<br><br><b>ELISA:</b> Suitable as capture antibody for sandwich-ELISA with cat. no. 111 002 as detector antibody (protocol for sandwich-ELISA).<br>Recognizes the Botulinum neurotoxin A and E cleavage products.<br>Recognizes splice variants SNAP 25A and B. |

**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.