

Rudolf-Wissell-Str. 28 37079 Göttingen, Germany

Phone: +49 551-50556-0
Fax: +49 551-50556-384
E-mail: sales@sysy.com
Web: www.sysy.com

## **SNAP 25**

Cat.No. 111 011BT; Monoclonal mouse antibody, 50 µg purified IgG (lyophilized)

## **Data Sheet**

| Reconstitution/<br>Storage | 50 $\mu g$ purified IgG, lyophilized, biotin-labeled For reconstitution add 50 $\mu$ l H $_2$ O to get a 1mg/ml solution in PBS. Then aliquot and store at -20°C until use.                                   |
|----------------------------|---|
| Applications               | WB: 1: 1000 up to 1: 10000 (AP staining)  IP: yes (see remarks)  ICC: 1: 100 up to 1: 1000  IHC: not recommended  IHC-P/FFPE: not tested yet  |
| Label                      | biotin  |
| Clone                      | 71.1  |
| Subtype                    | IgG1 (κ light chain)  |
| Immunogen                  | Recombinant protein corresponding to AA 1 to 206 from rat SNAP25B (UniProt Id: P60881-1) $$   |
| Epitop                     | Epitop: AA 20 to 40 from rat SNAP25B (UniProt Id: P60881-1)   |
| Reactivity                 | Reacts with: human (P60880), rat (P60881), mouse (P60879), vertebrates, invertebrates.  Other species not tested yet.   |
| Specificity                | Specific for SNAP 25.   |
| Remarks                    | IP: Immunoprecipitation not quantitative, appears to depend on the binding status of the protein.  Recognizes the Botulinum neurotoxin A and E cleavage products.  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.