

SNAP 25

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

Data Sheet

Reconstitution/ Storage	50 µg purified IgG, lyophilized. For reconstitution add 50 µl 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: 1 : 2000 EM: yes
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, zebrafish. 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.

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

Selected References SYSY Antibodies

- Composition of isolated synaptic boutons reveals the amounts of vesicle trafficking proteins. Wilhelm BG, Mandad 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, WB; tested species: rat**
- SV31 is a Zn²⁺-binding synaptic vesicle protein. Barth J, Zimmermann H, Volkhardt W *Journal of neurochemistry* (2011) 118(4): 558-70. **WB, ICC**
- Distinct axo-somatic distributions of three potassium channels in CA1 hippocampal pyramidal cells. Kirics T, Kerti-Szigeti K, Lorincz A, Nusser Z *The European journal of neuroscience* (2014) 39(11): 1771-83. **EM; tested species: rat**
- An Electrostatic Energy Barrier for SNARE-Dependent Spontaneous and Evoked Synaptic Transmission. Ruiter M, Kádová A, Scheutzow A, Malsam J, Söllner TH, Sørensen JB *Cell reports* (2019) 26(9): 2340-2352.e5. **WB; tested species: mouse**
- Identification of a Botulinum Neurotoxin-like Toxin in a Commensal Strain of Enterococcus faecium. Zhang S, Lebreton F, Mansfield MJ, Miyashita SI, Zhang J, Schwartzman JA, Tao L, Masuyer G, Martínez-Carranza M, Stenmark P, Gilmore MS, et al. *Cell host & microbe* (2018) 23(2): 169-176.e6. **WB; tested species: rat**
- Synaptotagmin oligomerization is essential for calcium control of regulated exocytosis. Bello OD, Jouannot O, Chaudhuri A, Stroeva E, Coleman J, Volynski KE, Rothman JE, Krishnakumar SS *Proceedings of the National Academy of Sciences of the United States of America* (2018) 115(32): E7624-E7631. **WB; tested species: rat**
- CRISPR interference-based specific and efficient gene inactivation in the brain. Zheng Y, Shen W, Zhang J, Yang B, Liu YN, Qi H, Yu X, Lu SY, Chen Y, Xu YZ, Li Y, et al. *Nature neuroscience* (2018) 21(3): 447-454. **WB; KD verified; tested species: mouse**
- Covalent modifiers of Botulinum neurotoxin counteract toxin persistence. Garland M, Babin BM, Miyashita SI, Loscher S, Shen Y, Dong M, Bogoy M *ACS chemical biology* (2018) : . **WB**
- Synaptotagmin-3 drives AMPA receptor endocytosis, depression of synapse strength, and forgetting. Awasthi A, Ramachandran B, Ahmed S, Benito E, Shinoda Y, Nitzan N, Heukamp A, Rannio S, Martens H, Barth J, Burk K, et al. *Science (New York, N.Y.)* (2018) : . **WB; tested species: rat**
- Riluzole attenuates the efficacy of glutamatergic transmission by interfering with the size of the readily releasable neurotransmitter pool. Lazarevic V, Yang Y, Ivanova D, Fejtová A, Svenssonsson P *Neuropharmacology* (2018) : . **ICC; tested species: rat**
- Olanzapine Reverses MK-801-Induced Cognitive Deficits and Region-Specific Alterations of NMDA Receptor Subunits. Liu X, Li J, Guo C, Wang H, Sun Y, Wang H, Su YA, Li K, Si T *Frontiers in behavioral neuroscience* (2017) 11: 260. **WB; tested species: rat**
- MiR-335 overexpression impairs insulin secretion through defective priming of insulin vesicles. Salunkhe VA, Ofori JK, Gandasi NR, Salö SA, Hansson S, Andersson ME, Wendt A, Barg S, Esguerra JLS, Eliasson L *Physiological reports* (2017) 5(21): . **WB; tested species: rat**
- Impaired AMPA receptor trafficking by a double knockout of zebrafish olfactomedin1a/b. Nakaya N, Sultana A, Tomarev SI *Journal of neurochemistry* (2017) 143(6): 635-644. **WB; tested species: zebrafish**
- Plekkg5-regulated autophagy of synaptic vesicles reveals a pathogenic mechanism in motoneuron disease. Lüningsschrör P, Binotti B, Dombert B, Heimann P, Perez-Lara A, Slotta C, Thau-Habermann N, R von Collenberg C, Karl F, Damme M, Horowitz A, et al. *Nature communications* (2017) 8(1): 678. **WB**
- A novel method for culturing stellate astrocytes reveals spatially distinct Ca²⁺ signaling and vesicle recycling in astrocytic processes. Wolfe AC, Ahmed S, Awasthi A, Stahlberg MA, Rajput A, Magruder DS, Bonn S, Dean C *The Journal of general physiology* (2017) 149(1): 149-170. **WB**
- How to Make an Active Zone: Unexpected Universal Functional Redundancy between RIMs and RIM-BPs. Acuna C, Liu X, Südhof TC *Neuron* (2016) 91(4): 792-807. **WB**
- Wnt signalling tunes neurotransmitter release by directly targeting Synaptotagmin-1. Ciani L, Marzo A, Boyle K, Stamatakou E, Lopes DM, Anane D, McLeod F, Rosso SB, Gibb A, Salinas PC *Nature communications* (2015) 6: 8302. **WB**