

SNAP 23

Cat.No. 111 203BT; Polyclonal rabbit antibody, 50 µg specific antibody (lyophilized)

Data Sheet

Reconstitution/ Storage	50 µg specific antibody, lyophilized. Affinity purified with the immunogen, biotin-labeled. . Rabbit serum albumin was added for stabilization. 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 (AP staining) IP: yes (see remarks) ICC: not tested yet IHC: not tested yet IHC-P/FFPE: not tested yet
Label	biotin
Immunogen	Synthetic peptide corresponding to AA 196 to 211 from human SNAP23 (UniProt Id: O00161)
Reactivity	Reacts with: rat (O70377), mouse (O09044). Other species not tested yet.
Specificity	Specific for SNAP 23.
matching control	111-2P
Remarks	IP: Antibody 2 (cat. no. 111 213) is recommended.

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

SNAP 23 (synaptosome-associated protein of 23 kDa) is an ubiquitously expressed isoform and functional homologue of SNAP 25. It is resistant to cleavage by BoNT/A and E. The protein is part of the exocytotic fusion complex (v-SNARE) where it assembles with syntaxin 1 and synaptobrevin. SNAP 23 is able to function in regulated exocytosis. Both isoforms may have their own specific binding partners and discrete, albeit mechanistically similar, functional roles within the cell.

Selected General References

- Mechanisms of synaptic vesicle exocytosis.
Lin RC, Scheller RH
Annual review of cell and developmental biology (2000) 16: 19-49.
- Membrane fusion and exocytosis.
Jahn R, Südhof TC
Annual review of biochemistry (1999) 68: 863-911.
- SNAP-23 is not cleaved by botulinum neurotoxin E and can replace SNAP-25 in the process of insulin secretion.
Sadoul K, Berger A, Niemann H, Weller U, Roche PA, Klip A, Trimble WS, Regazzi R, Catsicas S, Halban PA
The Journal of biological chemistry (1997) 272(52): 33023-7.
- Botulinum neurotoxin B inhibits insulin-stimulated glucose uptake into 3T3-L1 adipocytes and cleaves cellubrevin unlike type A toxin which failed to proteolyze the SNAP-23 present.
Chen F, Foran P, Shone CC, Foster KA, Melling J, Dolly JO
Biochemistry (1997) 36(19): 5719-28.
- Identification of a novel syntaxin- and synaptobrevin/VAMP-binding protein, SNAP-23, expressed in non-neuronal tissues.
Ravichandran V, Chawla A, Roche PA
The Journal of biological chemistry (1996) 271(23): 13300-3.
- The N-ethylmaleimide-sensitive fusion protein and alpha-SNAP induce a conformational change in syntaxin.
Hanson PI, Otto H, Barton N, Jahn R
The Journal of biological chemistry (1995) 270(28): 16955-61.
- The synaptic vesicle cycle: a cascade of protein-protein interactions.
Südhof TC
Nature (1995) 375(6533): 645-53.
- Synaptic vesicles and exocytosis.
Jahn R, Südhof TC
Annual review of neuroscience (1994) 17: 219-46.
- Mechanisms of intracellular protein transport.
Rothman JE
Nature (1994) 372(6501): 55-63.