

SV2 B

Cat.No. 119-1P; control peptide, 100 µg peptide (lyophilized)

Data Sheet

Reconstitution/ Storage	100 µg peptide, lyophilized. For reconstitution add 100 µl H ₂ 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 2 to 17 from rat SV2B (UniProt Id: Q63564)
Recommended dilution	Optimal concentrations should be determined by the end-user.
matching antibodies	119 102, 119 104, 119 111, 119 111BT, 119 106, 119 103
Remarks	This control peptide consists of the synthetic peptide (DDYRYRDNYESYAPND) 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

SV 2s (synaptic vesicle protein 2) are integral membrane glycoproteins present in all synaptic vesicles. They have 12 transmembrane domains predicted by sequence analysis. There are three characterized isoforms, SV 2A, SV 2B and SV 2C. SV 2A is expressed ubiquitously throughout the brain and is probably involved in the maintenance of a pool of synaptic vesicles competent for calcium- stimulated exocytosis. **SV 2B** has a more restricted distribution with varying degrees of coexpression with SV 2A. SV 2C is more closely related to SV 2A but shows a very restricted expression pattern. The highest expression levels were observed in phylogenetically old brain areas like pallidum, the midbrain and the olfactory bulb. SV2 expression has also been observed in other organs. In kidney it localizes to podocytes.

Selected General References

- SV2 modulates the size of the readily releasable pool of secretory vesicles.
Xu T, Bajjalieh SM
Nature cell biology (2001) 3(8): 691-8.
- Genetics of synaptic vesicle function: toward the complete functional anatomy of an organelle.
Fernández-Chacón R, Südhof TC
Annual review of physiology (1999) 61: 753-76.
- 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.
- Differential expression of synaptic vesicle protein 2 (SV2) isoforms.
Bajjalieh SM, Frantz GD, Weimann JM, McConnell SK, Scheller RH
The Journal of neuroscience : the official journal of the Society for Neuroscience (1994) 14(9): 5223-35.
- SV2, a brain synaptic vesicle protein homologous to bacterial transporters.
Bajjalieh SM, Peterson K, Shinghal R, Scheller RH
Science (New York, N.Y.) (1992) 257(5074): 1271-3.
- The synaptic vesicle protein SV2 is a novel type of transmembrane transporter.
Feany MB, Lee S, Edwards RH, Buckley KM
Cell (1992) 70(5): 861-7.