

## SV2 A

Cat.No. 119 011; Monoclonal mouse antibody, 100 µg purified IgG (lyophilized)

### Data Sheet

Reconstitution/ Storage	100 µg purified IgG, lyophilized. Azide was added before lyophilization. For reconstitution add 100 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 : 1000 (AP staining) (see remarks) <b>IP:</b> yes <b>ICC:</b> 1 : 100 up to 1 : 500 <b>IHC:</b> not recommended <b>IHC-P/FFPE:</b> 1 : 500
Clone	17G10
Subtype	IgG3 (κ light chain)
Immunogen	Synthetic peptide corresponding to AA 2 to 17 from human SV2A (UniProt Id: Q7L0J3)
Epitop	Epitop: AA 2 to 17 from human SV2A (UniProt Id: Q7L0J3)
Reactivity	Reacts with: human (Q7L0J3), rat (Q02563), mouse (Q9JIS5). Other species not tested yet.
Specificity	Specific for SV 2A.
matching control	119-0P
Remarks	<b>WB:</b> SV 2 aggregates after boiling, making it necessary to run SDS-PAGE only with non-boiled samples.

**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 References SYSY Antibodies

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### Selected General References

SV2 modulates the size of the readily releasable pool of secretory vesicles.  
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Genetics of synaptic vesicle function: toward the complete functional anatomy of an organelle.  
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The synaptic vesicle cycle: a cascade of protein-protein interactions.  
Südhof TC  
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Synaptic vesicles and exocytosis.  
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Differential expression of synaptic vesicle protein 2 (SV2) isoforms.  
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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  
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