

Synaptophysin 1/2

Cat.No. 101 111; 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 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 : 5000 AP staining (see remarks) IP: yes (see remarks) ICC: 1 : 500 IHC: 1 : 500 IHC-P/FFPE: not tested yet
Clone	318H7
Subtype	IgG1 (κ light chain)
Immunogen	Synthetic peptide corresponding to AA 250 to 265 from rat Synaptoporin (UniProt Id: P22831)
Reactivity	Reacts with: mouse (Q8BGN8, Q62277), rat (P22831, P07825). Other species not tested yet.
Specificity	Recognizes Synaptophysin1 and 2 (Synaptoporin) with strong preference for Synaptophysin1 in Western blot.
matching control	102-OP
Remarks	WB: Shows a strong preference for Synaptophysin 1 IP: Shows strong preference for Synaptophysin 1.

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

Synaptoporin, also known as **synaptophysin 2** and **p38-2**, is highly homologous to synaptophysin 1 but encoded by a different gene. Like synaptophysin 1, synaptoporin contains four transmembrane regions and a short cytoplasmic tail. Unlike synaptophysin 1, it is not glycosylated. The distributions of synaptophysin 1 and synaptoporin are different. Synaptophysin 1 is more uniformly expressed whereas synaptoporin is particularly enriched in mossy fiber synapses in the hippocampus. It is thus an excellent marker for subsets of synapses.

Selected References SYSY Antibodies

Overexpression of miR-1 in the heart attenuates hippocampal synaptic vesicle exocytosis by the posttranscriptional regulation of SNAP-25 through the transportation of exosomes.
Duan MJ, Yan ML, Wang Q, Mao M, Su D, Sun LL, Li KX, Qu Y, Sun Q, Zhang XY, Huang SY, et al.
Cell communication and signaling : CCS (2018) 16(1): 91. **WB; tested species: mouse**

Selected General References

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.

Relative properties and localizations of synaptic vesicle protein isoforms: the case of the synaptophysins.
Fykse EM, Takei K, Walch-Solimena C, Geppert M, Jahn R, De Camilli P, Südhof TC
The Journal of neuroscience : the official journal of the Society for Neuroscience (1993) 13(11): 4997-5007.

Synaptoporin, a novel putative channel protein of synaptic vesicles.
Knaus P, Marquère-Pouey B, Scherer H, Betz H
Neuron (1990) 5(4): 453-62.