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**Data Sheet**

### Reconstitution/Storage

200 µl antiserum, lyophilized. For reconstitution add 200 µl H2O, then aliquot and store at -20°C until use.

### Applications

- **WB**: 1 : 1000 (AP staining)
- **ICC**: yes
- **IHC**: 1 : 100 up to 1 : 1000
- **HIC**: 1 : 500
- **IHC-P/FFPE**: 1 : 500

### Immunogen

Synthetic peptide corresponding to AA 250 to 263 from rat Synaptoporin (UniProt Id: P22831)

### Reactivity

Reacts with: rat (P22831), mouse (Q8BGN8), hamster. Other species not tested yet.

### Specificity

Specific for synaptoporin.

### matching control

102-1P

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**Selected References SYSY Antibodies**

- **B-ephrin reverse signaling is required for NMDA-independent long-term potentiation of mossy fibers in the hippocampus.**

- **Epac2 Mediates cAMP-Dependent Potentiation of Neurotransmission in the hippocampus.**

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- **Serum response factor controls neuronal circuit assembly in the hippocampus.**
  - Knöll, B; Kretz, O; Friedler, C; Alberti, S; Schütz, G; Frotscher, M; Nordhem, A. **Nature neuroscience** (2006) 9(2): 195-204. **EM; tested species: mouse**

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- **New functions of Semaphorin 3E and its receptor Plexin D1 during developing and adult hippocampal formation.**
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- **Assembly of Excitatory Synapses in the Absence of Glutamatergic Neurotransmission.**
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- **The RacGAP Rho2-Chimaerin selectively mediates axonal pruning in the hippocampus.**
  - Riccomagno, MM; Hurtado, A; Wang, H; Macopson, JC; Griser, EM; Betz, A; Brose, N; Kazanietz, MG; Kolodkin, AL. **Cell** (2012) 149(7): 1594-606. **ICC; tested species: mouse**

- **β-Site amyloid precursor protein (APP)-cleaving enzyme 1 (BACE1)-deficient mice exhibit a close homolog of L1 (CHL1) loss-of-function phenotype involving axon guidance defects.**
  - Hitt, B; Riordan, SM; Kukreja, L; Eimer, WA; Rajakapaksu, TW; Vassar, R. **The Journal of Biological Chemistry** (2012) 287(40): 38408-25. **IHC**

- **Stereoradiologic estimation of hippocampal GluR2/- and calretinin-immunoreactive hilar neurons (presumptive mossy cells) in two mouse models of temporal lobe epilepsy.**
  - Volz, F; Bock, HH; Glöthmühlen, M; Zentner, J; Haas, CA; Freeman, TM. **Epilepsia** (2011) 52(9): 1579-89. **IHC**

- **Autaptic cultures of single hippocampal granule cells of mice and rats.**
  - Rosi, BR; Breasted, J; Schoenhehr, A; Grosse, C; Ahnert-Hilger, G; Schmitz, D. **The European journal of neuroscience** (2010) 32(6): 939-47. **ICC**

- **Continuous neural plasticity in the olfactory intrabulbar circuitry.**

- **The proteome of the presynaptic active zone: from docked synaptic vesicles to adhesive molecules and maxi-channels.**

- **Synaptic PRG-1 modulates excitatory transmission via lipid phosphate-mediated signaling.**

- **Activation of presynaptic P2X7-like receptors depresses mossy fiber-Ca3 synaptic transmission through p38 mitogen-activated protein kinase.**

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**Synaptophorin**

also known as **synaptophysin 2** and **p38-2**, is highly homologous to synaptophysin 1 but encoded by a different gene. Like synaptophysin 1, synaptophorin contains four transmembrane regions and a short cytoplasmic tail. Unlike synaptophysin 1, it is not glycosylated.

The distributions of synaptophysin 1 and synaptophorin 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.