

**Synapsin I Antibody**  
Rabbit polyclonal antibody, neat serum  
Catalog # AN1093

## Specification

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### Synapsin I Antibody - Product Information

Application	WB
Primary Accession	<a href="#">P17599</a>
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	polyclonal
Calculated MW	78 KDa

### Synapsin I Antibody - Additional Information

Gene ID	281510
Gene Name	SYN1
<b>Other Names</b>	
Synapsin-1, Synapsin I, SYN1	

#### Target/Specificity

Native protein purified from bovine brain.

#### Dilution

WB~~ 1:1000

#### Format

Unpurified neat serum.

#### Antibody Specificity

Specific for the ~78k synapsin I protein doublet. Immunolabeling blocked by preadsorption of the antibody with the protein used to generate the antibody.

#### Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

#### Precautions

Synapsin I Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

#### Shipping

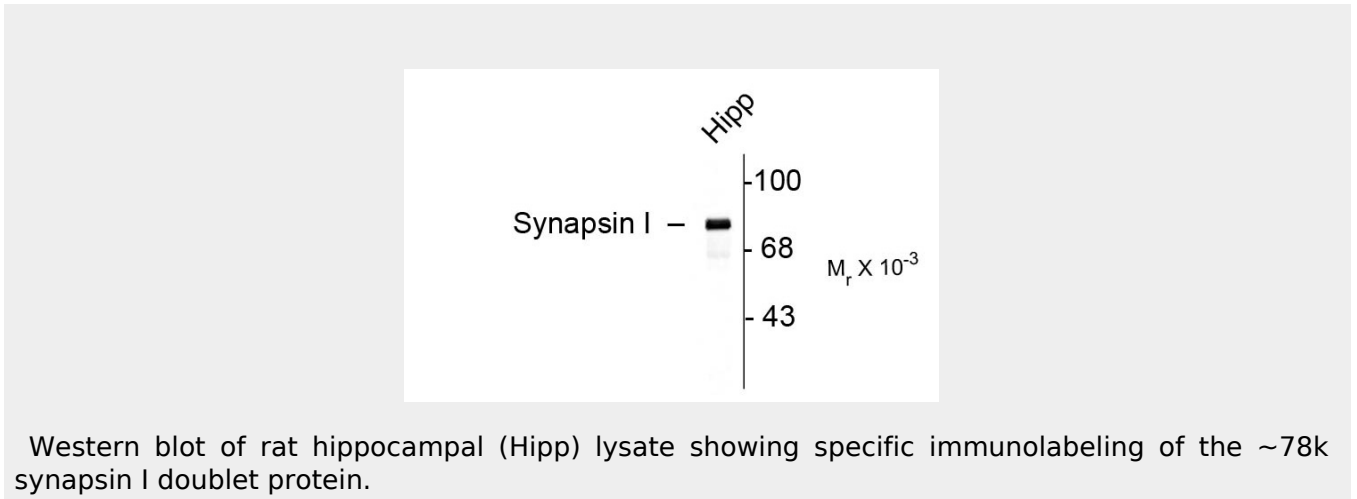
Blue Ice

### Synapsin I Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

### Synapsin I Antibody - Images



Western blot of rat hippocampal (Hipp) lysate showing specific immunolabeling of the ~78k synapsin I doublet protein.

### Synapsin I Antibody - Background

Synapsin I plays a key role in synaptic plasticity in the brain (Feng et al., 2002; Nayak et al., 1996). This effect is due in large part to the ability of the synapsins to regulate the availability of synaptic vesicles for release. In addition to its role in plasticity, the expression of synapsin I is a precise indicator of synapse formation (Moore and Bernstein, 1989; Stone et al., 1994). Thus, Synapsin I immunocytochemistry provides a valuable tool for the study of synaptogenesis. The role of synapsin in synaptic plasticity and in synaptogenesis is regulated by phosphorylation (Jovanovic et al., 2001; Kao et al., 2002).

### Synapsin I Antibody - References

Feng J, Chi P, Blanpied TA, Xu YM, Magarinos AM, Ferreira A, Takahashi RH, Kao HT, McEwen BS, Ryan TA, Augustine GJ, Greengard P (2002) Regulation of neurotransmitter release by synapsin III. *J Neurosci* 22:4372-4380.

Jovanovic JN, Sihra TS, Nairn AC, Hemmings HC, Jr., Greengard P, Czernik AJ (2001) Opposing changes in phosphorylation of specific sites in synapsin I during Ca<sup>2+</sup>-dependent glutamate release in isolated nerve terminals. *J Neurosci* 21:7944-7953.

Kao HT, Song HJ, Porton B, Ming GL, Hoh J, Abraham M, Czernik AJ, Pieribone VA, Poo MM, Greengard P (2002) A protein kinase A-dependent molecular switch in synapsin I regulates neurite outgrowth. *Nature Neurosci* 5:431-437.

Moore RY, Bernstein M (1989) Synaptogenesis in the rat suprachiasmatic nucleus demonstrated by

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Nayak AS, Moore CI, Browning MD (1996) CaM kinase II

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Stone LM, Browning MD, Finger TE (1994) Differential dist

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Note: Dr. Michael Browning and Dr. Andrew Czernik,

co-authors of the cited papers are the President

and Chief Scientific Officer of Phosph

oSolutions and two of its founders.