

#2312 Store at -20°C

# Synapsin Antibody



✓ 100 µl  
(10 western blots)

**Orders** ■ 877-616-CELL (2355)  
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**Support** ■ 877-678-TECH (8324)  
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This product is intended for research purposes only. This product is not intended to be used for therapeutic or diagnostic purposes in humans or animals.

Entrez-Gene ID #6853  
Swiss-Prot Acc. #P17600

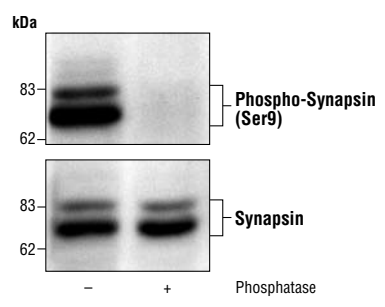
Applications	Species Cross-Reactivity*	Molecular Wt.	Source
W, IF-F Endogenous	M, R, (H)	77 kDa	Rabbit**

**Background:** Synapsins, a group of at least five related members (synapsins Ia, Ib, IIa, IIb and IIIa), are abundant brain proteins essential for regulating neurotransmitter release (1,2). All synapsins contain a short amino-terminal domain that is highly conserved and phosphorylated by PKA or CaM kinase I (1). Phosphorylation of synapsin amino-terminal domain at serine 9 inhibits its binding to phospholipids and dissociates synapsins from synaptic vesicles (2).

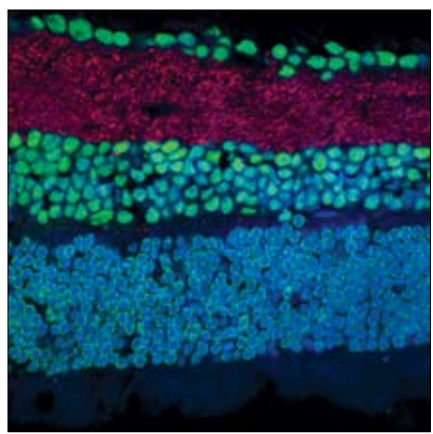
**Specificity/Sensitivity:** Synapsin Antibody detects endogenous levels of total synapsin protein. This antibody is expected to recognize all synapsin isoforms.

**Source/Purification:** Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Ser9 of human synapsin I. Antibodies are purified by protein A and peptide affinity chromatography.

**Background References:**  
(1) Greengard, P. (1987) *Mol. Neurobiol.* 1, 81-119.  
(2) Hosaka, M. et al. (1999) *Neuron* 24, 377-387.



Western blot analysis of mouse brain homogenates, untreated or phosphatase-treated, using Phospho-Synapsin (Ser9) Antibody #2311 (upper) or Synapsin Antibody (lower).



Confocal microscopic image of mouse retina labeled with Synapsin Antibody (red) and CREB (86B10) Mouse mAb #9104 (green). Blue pseudocolor stain = DRAQ5® (fluorescent DNA dye).

**Storage:** Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at -20°C. Do not aliquot the antibody.

**\*Species cross-reactivity is determined by western blot.**  
**\*\*Anti-rabbit secondary antibodies must be used to detect this antibody.**

**Recommended Antibody Dilutions:**  
Western blotting 1:1000  
Immunofluorescence (IF-F) 1:50

For application specific protocols please see the web page for this product at [www.cellsignal.com](http://www.cellsignal.com).

Please visit [www.cellsignal.com](http://www.cellsignal.com) for a complete listing of recommended companion products.

**IMPORTANT: For western blots, incubate membrane with diluted antibody in 5% w/v BSA, 1X TBS, 0.1% Tween-20 at 4°C with gentle shaking, overnight.**

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**Applications Key:** W—Western IP—Immunoprecipitation IHC—Immunohistochemistry ChIP—Chromatin Immunoprecipitation IF—Immunofluorescence F—Flow cytometry E-P—ELISA-Peptide  
**Species Cross-Reactivity Key:** H—human M—mouse R—rat Hm—hamster Mk—monkey Mi—mink C—chicken Dm—D. melanogaster X—Xenopus Z—zebrafish B—bovine  
Dg—dog Pg—pig Sc—S. cerevisiae Ce—C. elegans Hr—Horse All—all species expected Species enclosed in parentheses are predicted to react based on 100% homology.