

Synapsin I Antibody
Affinity purified rabbit polyclonal antibody
Catalog # AN1059**Specification**

Synapsin I Antibody - Product Information

Application	WB, IF
Primary Accession	P17599
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	polyclonal
Calculated MW	78 KDa

Synapsin I Antibody - Additional Information

Gene ID	281510
Gene Name	SYN1
Other Names	
Synapsin-1, Synapsin I, SYN1	

Target/Specificity

Native protein purified from bovine brain.

Dilution

WB~~ 1:1000

IF~~ 1:1000

Format

Prepared from rabbit serum by affinity purification using a column to which the native protein was coupled.

Antibody Specificity

Specific for the ~78k synapsin I doublet in Western blots of rat brain extracts. Immunolabeling blocked by preadsorption of 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

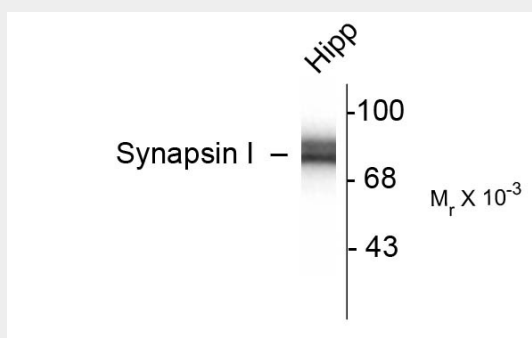
Blue Ice

Synapsin I Antibody - Protocols

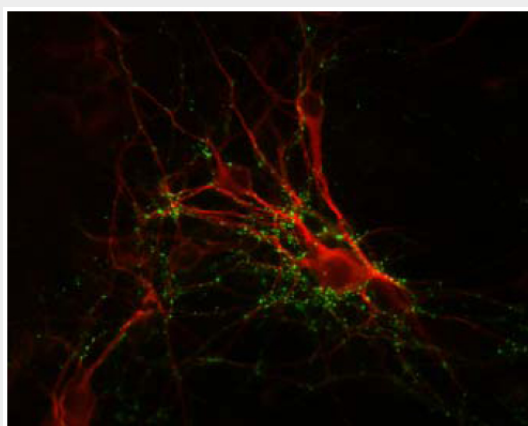
Provided below are standard protocols that you may find useful for product applications.

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

Synapsin I Antibody - Images



Western blot of 10 ug of rat hippocampal (Hipp) lysate showing specific immunolabeling of the ~78k synapsin I doublet protein.



Immunostaining of cultured rat caudate neurons showing punctate distribution of synapsin in green and MAP in red. Cells and photo courtesy of QBMCellScience.

Synapsin I Antibody - Background

Colorado Biosciences Park
12635 East Montview Boulevard, #213
Aurora, CO 80045-7337
Tel: (888) 442-7100

Page 1 of 2

WB

= Western Blot

IF

= Immunofluorescence

IHC

= Immunohistochemistry

IP

= Immunoprecipitation

Packaging:

10

μ

g antibody vial; lyophilized from 5 mM ammonium bicarbonate

. The antibody should be reconstituted in 50 μl phosphate buffered saline (PBS: 137 mM NaCl, 7.5 mM Na

2

HPO

4

, 2.7 mM KCl, 1.5 mM KH

2

PO

4

, pH 7.4) before use. After reconstitution the antibody should be aliquoted and stored

at -20

o

C.

Adequate amount of material to conduct 10-mini Western Blots.

Storage and Stability:

For long term storage -20

o

C is recommended. Stable at -20

o

C for at least 1 year

Shipment:

Domestic - Ambient; International - Ambient.

Anti-Synapsin I

Catalog Number:

1925-SYNP

Size

: 10 μg

Product Description:

Affinity purified rabbit polyclonal antibody

Applications:

WB

: 1:1000

IHC/IF:

1:1000

IP

: 1 μg per 200 μg lysate

Antigen:

Native protein purified from bovine brain.

Species reactivity

: The antibody has been directly tested for reactivity in Western blots with rat, mouse and human tissue.

Biological Significance:

Synapsin I Antibody - References

Feng J, Chi P, Blanpied TA, Xu YM, Magarinos AM, Fe

reira 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^{2+} -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 electron microscopy and synapsin I immunoreactivity. *J Neurosci* 9:2151-2162.

Nayak AS, Moore CI, Browning MD (1996) Ca^{2+} /calmodulin kinase II phosphorylation of the presynaptic protein synapsin I is persistently increased during expression of long-term potentiation. *Proc Natl Acad Sci (USA)* 93:15451-15456.

Stone LM, Browning MD, Finger TE (1994) Differential distribution of the synapsins in the rat olfactory bulb. *J Neurosci* 14:301-309.

Kurtis D. Davies, Susan M. Goebel-Goody, Steven J. Coultrap, and Michael D. Browning (2008) Long Term Synaptic Depression That Is Associated with GluR1 Dephosphorylation but Not α -Amino-3-hydroxy-5-methyl-4-isoxazolepropionic Acid (AMPA) Receptor Internalization. *J. Biol. Chem.*, 283: 33138 - 33146.

Note: Dr. Michael Browning, co-author of the cited papers is the President and founder PhosphoSolutions.