



# Synapsin I Polyclonal Antibody

<b>Catalog No</b>	BYab-00740
<b>Isotype</b>	IgG
<b>Reactivity</b>	Human;Mouse;Rat
<b>Applications</b>	WB;IHC;IF;ELISA
<b>Gene Name</b>	SYN1
<b>Protein Name</b>	Synapsin-1
<b>Immunogen</b>	The antiserum was produced against synthesized peptide derived from human Synapsin. AA range:3-52
<b>Specificity</b>	Synapsin I Polyclonal Antibody detects endogenous levels of Synapsin I protein.
<b>Formulation</b>	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
<b>Source</b>	Polyclonal, Rabbit,IgG
<b>Purification</b>	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
<b>Dilution</b>	Western Blot: 1/500 - 1/2000. Immunohistochemistry: 1/100 - 1/300. Immunofluorescence: 1/200 - 1/1000. ELISA: 1/20000. Not yet tested in other applications.
<b>Concentration</b>	1 mg/ml
<b>Purity</b>	≥90%
<b>Storage Stability</b>	-20°C/1 year
<b>Synonyms</b>	SYN1; Synapsin-1; Brain protein 4.1; Synapsin I
<b>Observed Band</b>	74kD
<b>Cell Pathway</b>	Cell junction, synapse. Golgi apparatus .
<b>Tissue Specificity</b>	Brain,Brain cortex,
<b>Function</b>	disease:Defects in SYN1 are a cause of epilepsy X-linked with variable learning disabilities and behavior disorders [MIM:300491]. XELBD is characterized by variable combinations of epilepsy, learning difficulties, macrocephaly, and aggressive behavior.,function:Neuronal phosphoprotein that coats synaptic vesicles, binds to the cytoskeleton, and is believed to function in the regulation of neurotransmitter release. The complex formed with NOS1 and CAPON proteins is necessary for specific nitric-oxid functions at a presynaptic level.,PTM:Substrate of at least four different protein kinases. It is probable that phosphorylation plays a role in the regulation of synapsin-1 in the nerve terminal. Phosphorylated upon DNA damage, probably by ATM or ATR.,similarity:Belongs to the synapsin

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family.,subunit:Homodimer. Interacts with CAPON. Forms a ternary complex with NOS1. Isoform Ib interacts with

#### Background

This gene is a member of the synapsin gene family. Synapsins encode neuronal phosphoproteins which associate with the cytoplasmic surface of synaptic vesicles. Family members are characterized by common protein domains, and they are implicated in synaptogenesis and the modulation of neurotransmitter release, suggesting a potential role in several neuropsychiatric diseases. This member of the synapsin family plays a role in regulation of axonogenesis and synaptogenesis. The protein encoded serves as a substrate for several different protein kinases and phosphorylation may function in the regulation of this protein in the nerve terminal. Mutations in this gene may be associated with X-linked disorders with primary neuronal degeneration such as Rett syndrome. Alternatively spliced transcript variants encoding different isoforms have been identified. [provided by RefSeq, Jul 2008],

#### matters needing attention

Avoid repeated freezing and thawing!

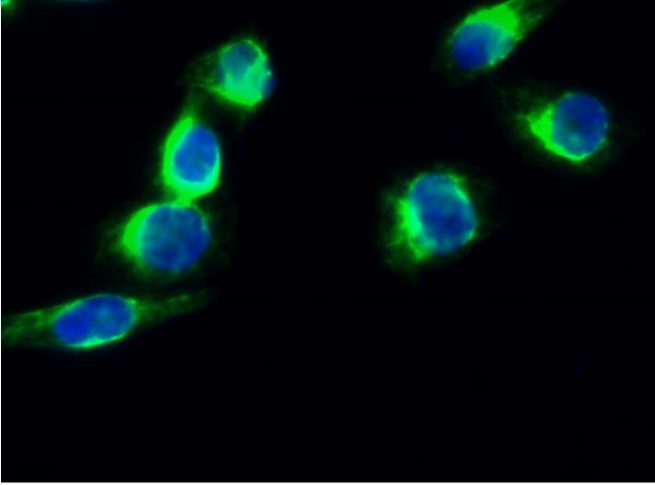
#### Usage suggestions

This product can be used in immunological reaction related experiments. For more information, please consult technical personnel.

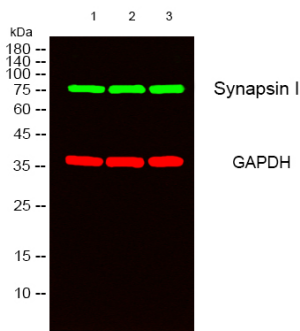
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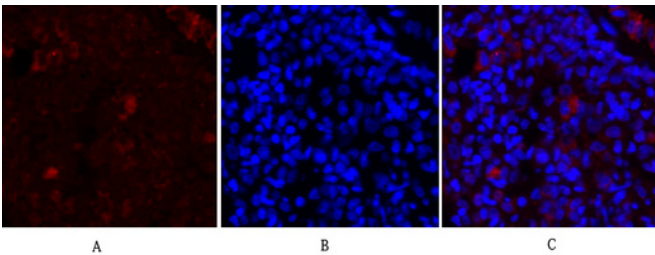
## Products Images



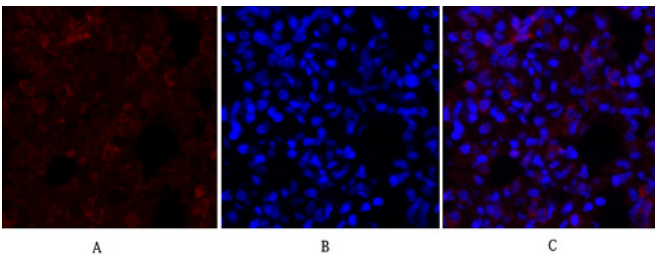
Immunofluorescence analysis of HeLa cell. 1, Synapsin I Polyclonal Antibody (green) was diluted at 1:200 (4° overnight). 2, Goat Anti Rabbit Alexa Fluor 488 Catalog: RS3211 was diluted at 1:1000 (room temperature, 50min). 3 DAPI (blue) 10min.



Western blot analysis of lysates from 1) HeLa, 2) 293, 3) NIH-3T3 cells. (Green) primary antibody was diluted at 1:1000, 4° overnight, secondary antibody (cat: RS23920) was diluted at 1:10000, 37° 1hour. (Red) GAPDH Monoclonal Antibody (2B8) (cat: YM3029) antibody was diluted at 1:5000 as loading control, 4° overnight, secondary antibody (cat: RS23710) was diluted at 1:10000, 37° 1hour.

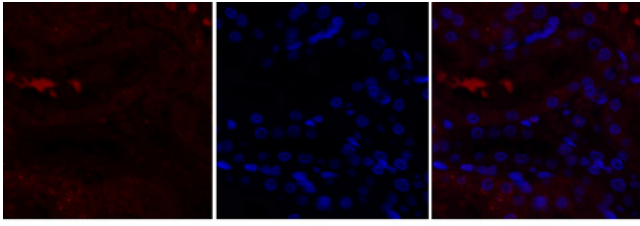


Immunofluorescence analysis of rat-lung tissue. 1, Synapsin I Polyclonal Antibody (red) was diluted at 1:200 (4°C, overnight). 2, Cy3 labeled Secondary antibody was diluted at 1:300 (room temperature, 50min). 3, Picture B: DAPI (blue) 10min. Picture A: Target. Picture B: DAPI. Picture C: merge of A+B



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A

B

C

Immunofluorescence analysis of rat-kidney tissue.  
1, Synapsin I Polyclonal Antibody (red) was diluted at 1:200 (4°C, overnight). 2, Cy3 labeled Secondary antibody was diluted at 1:300 (room temperature, 50min). 3, Picture B: DAPI (blue) 10min. Picture A: Target. Picture B: DAPI. Picture C: merge of A+B