

Anti-Synapsin I Picoband Antibody

Catalog # ABO11717

Product Information

Application	WB, IHC-P
Primary Accession	P17600
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Format	Lyophilized
Description	Rabbit IgG polyclonal antibody for Synapsin-1(SYN1) detection. Tested with WB, IHC-P in Human;Mouse;Rat.

Reconstitution Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Additional Information

Gene ID	6853
Other Names	Synapsin-1, Brain protein 4.1, Synapsin I, SYN1
Calculated MW	74111
Application Details	Immunohistochemistry(Paraffin-embedded Section), 0.5-1 μ g/ml, Human, By Heat Western blot, 0.1-0.5 μ g/ml, Human, Mouse, Rat
Subcellular Localization	Cell junction, synapse. Golgi apparatus .
Source	Eukaryota
Protein Name	Synapsin-1
Contents	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na ₂ HPO ₄ , 0.05mg NaN ₃ .
Immunogen	A synthetic peptide corresponding to a sequence at the C-terminus of human Synapsin I (662-705aa KSQSLTNAFNLPEPAPPRPSLSQDEVKAETIRSLRKSFASL FSD), identical to the related mouse and rat sequences.
Purification	Immunogen affinity purified.
Cross Reactivity	No cross reactivity with other proteins
Storage	At -20° C for one year. After r° Constitution, at 4° C for one month. It° Can also be aliquotted and stored frozen at -20° C for a longer time.Avoid repeated freezing and thawing.

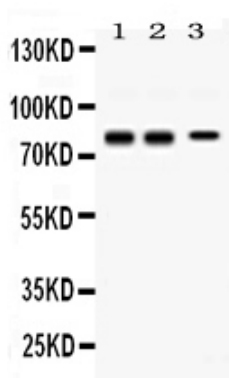
Protein Information

Name	SYN1
Function	Neuronal phosphoprotein that coats synaptic vesicles, and binds to the cytoskeleton. Acts as a regulator of synaptic vesicles trafficking, involved in the control of neurotransmitter release at the pre-synaptic terminal (PubMed: 21441247 , PubMed: 23406870). Also involved in the regulation of axon outgrowth and synaptogenesis (By similarity). The complex formed with NOS1 and CAPON proteins is necessary for specific nitric-oxid functions at a presynaptic level (By similarity).
Cellular Location	Synapse {ECO:0000250 UniProtKB:O88935}. Golgi apparatus {ECO:0000250 UniProtKB:O88935}. Presynapse. Cytoplasmic vesicle, secretory vesicle, synaptic vesicle {ECO:0000250 UniProtKB:P09951}. Note=Dissociates from synaptic vesicles and redistributes into the axon during action potential firing, in a step that precedes fusion of vesicles with the plasma membrane. Reclusters to presynapses after the cessation of synaptic activity. {ECO:0000250 UniProtKB:P09951}

Background

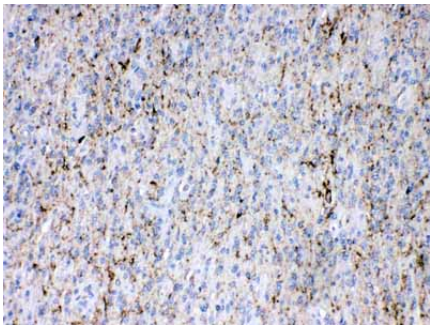
Synapsin I, is the collective name for Synapsin Ia and Synapsin Ib, two nearly identical phosphoproteins that in humans are encoded by the SYN1 gene. This gene is a member of the synapsin gene family. Synapsins encode neuronal phosphoproteins which associate with the cytoplasmic surface of synaptic vesicles. 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.

Images



Western blot analysis of Synapsin I expression in rat brain extract (lane 1), mouse brain extract (lane 2), and SHG-44 whole cell lysates (lane 3). Synapsin I at 78KD was detected using rabbit anti- Synapsin I Antigen Affinity purified polyclonal antibody (Catalog # ABO11717) at 0.5 μ g/mL. The blot was developed using chemiluminescence (ECL) method .

Synapsin I was detected in paraffin-embedded sections of human glioma tissues using rabbit anti- Synapsin I Antigen Affinity purified polyclonal antibody (Catalog # ABO11717) at 1 μ g/mL. The immunohistochemical section was developed using SABC method .



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