

For Research Use Only

Synaptotagmin-1 Polyclonal antibody



Catalog Number: 14511-1-AP **7 Publications**

Basic Information

Catalog Number: 14511-1-AP	GenBank Accession Number: BC058917	Purification Method: Antigen affinity purification
Size: 150ul , Concentration: 550 µg/ml by Nanodrop and 267 µg/ml by Bradford method using BSA as the standard;	GeneID (NCBI): 6857	Recommended Dilutions: WB 1:500-1:1000 IP 0.5-4.0 ug for IP and 1:500-1:1000 for WB
Source: Rabbit	Full Name: synaptotagmin I	IHC 1:20-1:200 IF 1:50-1:500
Isotype: IgG	Calculated MW: 48 kDa	
Immunogen Catalog Number: AG5970	Observed MW: 65 kDa, 47 kDa	

Applications

Tested Applications: IF, IHC, IP, WB, ELISA	Positive Controls: WB : human liver tissue, mouse testis tissue, Y79 cells
Cited Applications: IF, IHC, WB	IP : mouse testis tissue,
Species Specificity: human, mouse	IHC : human liver cancer tissue,
Cited Species: human, mouse, rat	IF : HepG2 cells,

Note-IHC: suggested antigen retrieval with TE buffer pH 9.0; (*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0

Background Information

The synaptotagmins are integral membrane proteins of synaptic vesicles thought to serve as Ca²⁺ sensors in the process of vesicular trafficking and exocytosis (PMID: 8058779). SYT1 (synaptotagmin I) was firstly identified as a 65-kDa protein with a wide distribution in neuronal and neurosecretory tissue (PMID: 7298720). Calcium binding to SYT1 participates in triggering neurotransmitter release at the synapse (PMID: 11242035). In addition to regulating exocytosis, SYT1 has also been implicated in endocytosis and neurite outgrowth (PMID: 15492212; 11078930; 10336114). This antibody recognizes endogenous SYT1, which has an experimentally determined molecular mass of 65-68 kDa. An additional band of 47 kDa could also be detected, which is corresponding to the calculated molecular weight of SYT1.

Notable Publications

Author	Pubmed ID	Journal	Application
Hao-Long Zeng	29174846	Biochim Biophys Acta	WB
Hao-Long Zeng	24998433	J Proteomics	WB
Frank Neuschäfer-Rube	35051041	Toxins (Basel)	WB

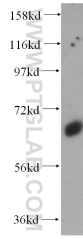
Storage

Storage:
Store at -20°C. Stable for one year after shipment.
Storage Buffer:
PBS with 0.02% sodium azide and 50% glycerol pH 7.3.
Aliquoting is unnecessary for -20°C storage

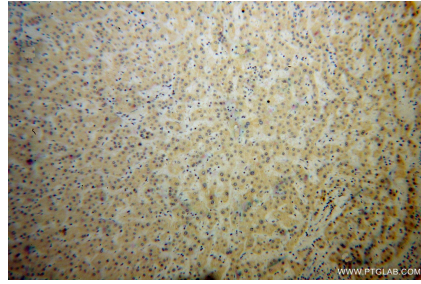
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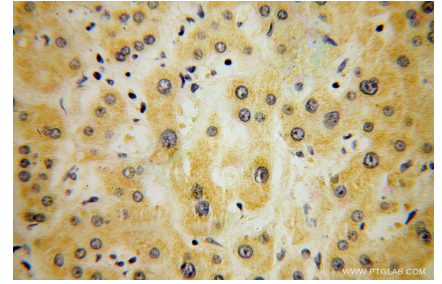
Selected Validation Data



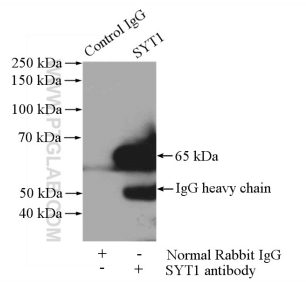
human liver tissue were subjected to SDS PAGE followed by western blot with 14511-1-AP (Synaptotagmin-1 antibody) at dilution of 1:1000 incubated at room temperature for 1.5 hours.



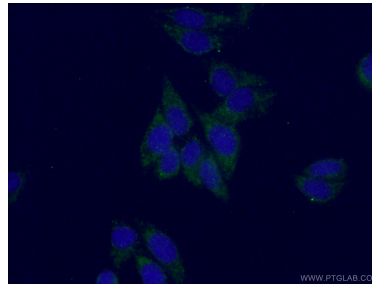
Immunohistochemical analysis of paraffin-embedded human liver cancer using 14511-1-AP (Synaptotagmin-1 antibody) at dilution of 1:100 (under 10x lens).



Immunohistochemical analysis of paraffin-embedded human liver cancer using 14511-1-AP (Synaptotagmin-1 antibody) at dilution of 1:100 (under 40x lens).



IP Result of anti-Synaptotagmin-1 (IP:14511-1-AP, 4ug; Detection:14511-1-AP 1:500) with mouse testis tissue lysate 4000ug.



Immunofluorescent analysis of (-20°C Ethanol) fixed HepG2 cells using 14511-1-AP (Synaptotagmin-1 antibody) at dilution of 1:50 and Alexa Fluor 488-conjugated AffiniPure Goat Anti-Rabbit IgG(H+L).