

For Research Use Only

Synaptotagmin-1 Recombinant antibody

Catalog Number: 83637-4-RR



Basic Information

Catalog Number: 83637-4-RR	GenBank Accession Number: BC058917	Purification Method: Protein A purification
Size: 100ul , Concentration: 1000 ug/ml by Nanodrop;	GeneID (NCBI): 6857	CloneNo.: 240589F6
Source: Rabbit	UNIPROT ID: P21579	Recommended Dilutions: WB 1:2000-1:16000 IHC 1:1000-1:4000 IF/ICC 1:125-1:500
Isotype: IgG	Full Name: synaptotagmin I	
Immunogen Catalog Number: AG5970	Calculated MW: 48 kDa	
	Observed MW: 60 kDa	

Applications

Tested Applications: WB, IHC, IF/ICC, ELISA	Positive Controls:
Species Specificity: human, mouse, rat	WB : mouse brain tissue, mouse cerebellum tissue, rat brain tissue
Note-IHC: suggested antigen retrieval with TE buffer pH 9.0; (*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0	IHC : mouse brain tissue,
	IF/ICC : SH-SY5Y cells,

Background Information

The synaptotagmins are integral membrane proteins of synaptic vesicles thought to serve as Ca(2+) 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.

Storage

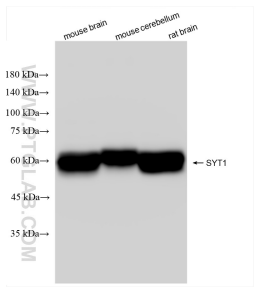
Storage:
Store at -20°C. Stable for one year after shipment.
Storage Buffer:
PBS with 0.02% sodium azide and 50% glycerol pH 7.3.
Aliquoting is unnecessary for -20°C storage

*** 20ul sizes contain 0.1% BSA

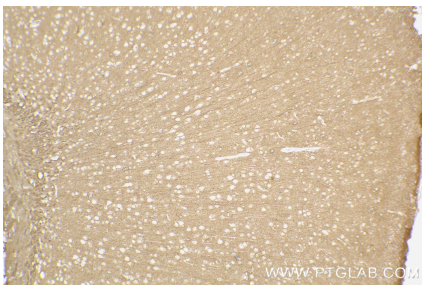
For technical support and original validation data for this product please contact:
T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)
E: proteintech@ptglab.com
W: ptglab.com

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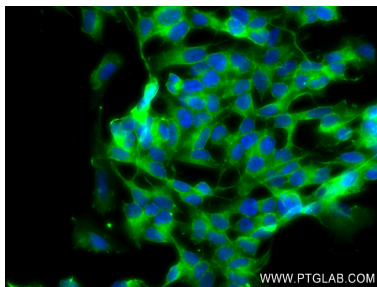
Selected Validation Data



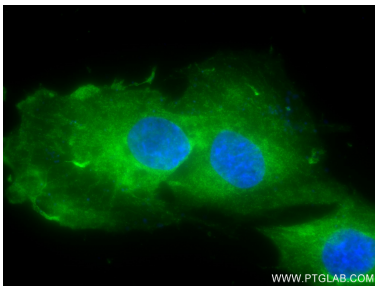
Various lysates were subjected to SDS PAGE followed by western blot with 83637-4-RR (Synaptotagmin-1 antibody) at dilution of 1:8000 incubated at room temperature for 1.5 hours.



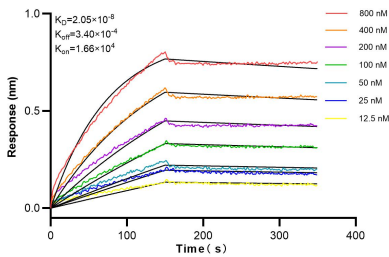
Immunohistochemical analysis of paraffin-embedded mouse brain tissue slide using 83637-4-RR (Synaptotagmin-1 antibody) at dilution of 1:2000 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunofluorescent analysis of (4% PFA) fixed SH-SY5Y cells using Synaptotagmin-1 antibody (83637-4-RR, Clone: 240589F6) at dilution of 1:250 and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L) (SA00013-2).



Immunofluorescent analysis of (4% PFA) fixed SH-SY5Y cells using Synaptotagmin-1 antibody (83637-4-RR, Clone: 240589F6) at dilution of 1:250 and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L) (SA00013-2).



Biolayer interferometry (BLI) kinetic assays of 83637-4-RR against Human Synaptotagmin-1 were performed. The affinity constant is 20.5 nM.