

For Research Use Only

# Synaptotagmin-1 Recombinant antibody, PBS Only

Catalog Number: 83637-4-PBS



## Basic Information

<b>Catalog Number:</b> 83637-4-PBS	<b>GenBank Accession Number:</b> BC058917	<b>Purification Method:</b> Protein A purification
<b>Size:</b> 100ug , Concentration: 1 mg/ml by Nanodrop;	<b>GeneID (NCBI):</b> 6857	<b>CloneNo.:</b> 240589F6
<b>Source:</b> Rabbit	<b>UNIPROT ID:</b> P21579	
<b>Isotype:</b> IgG	<b>Full Name:</b> synaptotagmin I	
<b>Immunogen Catalog Number:</b> AG5970	<b>Calculated MW:</b> 48 kDa	
	<b>Observed MW:</b> 60 kDa	

## Applications

**Tested Applications:**  
WB, IHC, IF/ICC, ELISA

**Species Specificity:**  
human, mouse, rat

## Background Information

The synaptotagmins are integral membrane proteins of synaptic vesicles thought to serve as Ca<sup>2+</sup> 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

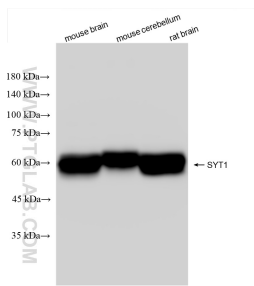
**Storage:**  
Store at -80°C.

**Storage Buffer:**  
PBS Only

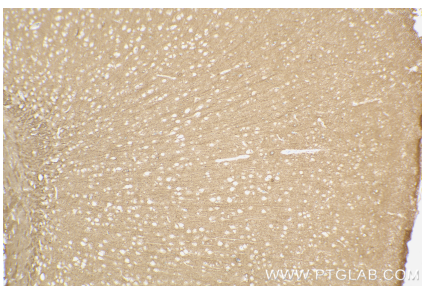
For technical support and original validation data for this product please contact:  
T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)  
E: [proteintech@ptglab.com](mailto:proteintech@ptglab.com)  
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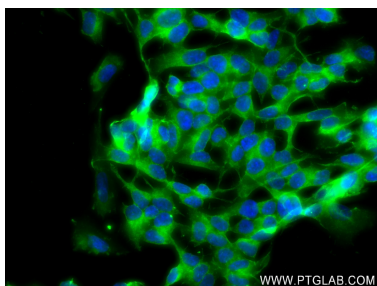
## Selected Validation Data



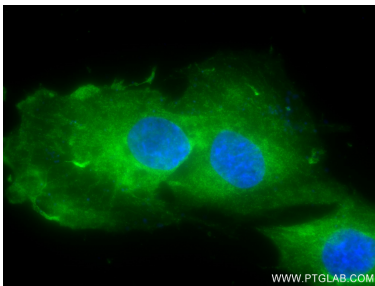
Various lysates were subjected to SDS PAGE followed by western blot with 83637-4-RR (Synaptotagmin-1 antibody) at dilution of 1:8000 incubated at room temperature for 1.5 hours. This data was developed using the same antibody clone with 83637-4-PBS in a different storage buffer formulation.



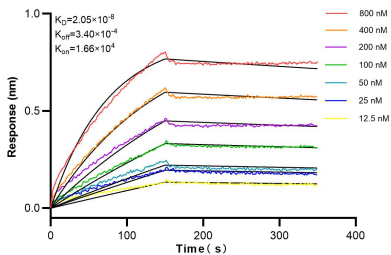
Immunohistochemical analysis of paraffin-embedded mouse brain tissue slide using 83637-4-RR (Synaptotagmin-1 antibody) at dilution of 1:2000 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0). This data was developed using the same antibody clone with 83637-4-PBS in a different storage buffer formulation.



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). This data was developed using the same antibody clone with 83637-4-PBS in a different storage buffer formulation.



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). This data was developed using the same antibody clone with 83637-4-PBS in a different storage buffer formulation.



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