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Synaptotagmin 1/SYT1 Rabbit pAb

Catalog # AP97777

Product Information

Application	IHC-P, IHC-F, IF
Primary Accession	P21579
Other Accession	P21579
Reactivity	Rat
Predicted	Human, Mouse, Rabbit, Zebrafish, Chicken, Horse, Sheep
Host	Rabbit
Clonality	Polyclonal
Calculated MW	47573
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human Synaptotagmin 1/SYT1
Epitope Specificity	321-422/422
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SIMILARITY	Belongs to the synaptotagmin family.Contains 2 C2 domains.
SUBUNIT	Homotetramer (Probable). Interacts with SCAMP5, STON2, SV2A, SV2B, SV2C and RIMS1. Forms a complex with SV2B, syntaxin 1 and SNAP25.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	The synaptotagmins are integral membrane proteins of synaptic vesicles thought to serve as Ca(2+) sensors in the process of vesicular trafficking and exocytosis. Calcium binding to synaptotagmin participates in triggering neurotransmitter release at the synapse. The first C2 domain mediates Ca(2+)-dependent phospholipid binding. The second C2 domain mediates interaction with Stonin 2. Synaptotagmin may have a regulatory role in the membrane interactions during trafficking of synaptic vesicles at the active zone of the synapse. It binds acidic phospholipids with a specificity that requires the presence of both an acidic head group and a diacyl backbone. A Ca(2+)-dependent interaction between synaptotagmin and putative receptors for activated protein kinase C has also been reported. It can bind to at least three additional proteins in a Ca(2+)-independent manner; these are neurexins, syntaxin and AP2.

Additional Information

Gene ID	6857
Other Names	BAGOS; P65; SVP65; SYT; G630098F17Rik; SytI; SYT1_HUMAN; SYT1; Synaptotagmin I (SytI); SYT1_MOUSE; SYT1_RAT; synaptotagmin 1; synaptotagmin I
Dilution	IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500

Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

Protein Information

Name	SYT1 (HGNC:11509)
Synonyms	SVP65, SYT
Function	Calcium sensor that participates in triggering neurotransmitter release at the synapse (By similarity). May have a regulatory role in the membrane interactions during trafficking of synaptic vesicles at the active zone of the synapse (By similarity). It binds acidic phospholipids with a specificity that requires the presence of both an acidic head group and a diacyl backbone. A Ca(2+)- dependent interaction between synaptotagmin and putative receptors for activated protein kinase C has also been reported. It can bind to at least three additional proteins in a Ca(2+)-independent manner; these are neurexins, syntaxin and AP2. Plays a role in dendrite formation by melanocytes (PubMed:23999003).
Cellular Location	Cytoplasmic vesicle, secretory vesicle membrane {ECO:0000250|UniProtKB:P21707}; Single-pass membrane protein. Cytoplasmic vesicle, secretory vesicle, synaptic vesicle membrane {ECO:0000250|UniProtKB:P21707}; Single-pass membrane protein {ECO:0000250|UniProtKB:P21707}. Cytoplasmic vesicle, secretory vesicle, chromaffin granule membrane {ECO:0000250|UniProtKB:P21707}; Single-pass membrane protein {ECO:0000250|UniProtKB:P21707}. Cytoplasm {ECO:0000250|UniProtKB:P21707}
Tissue Location	Expressed in melanocytes (PubMed:23999003).

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.