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Synaptotagmin I Antibody
Peptide-affinity purified goat antibody
Catalog # AF2057a

Specification

Synaptotagmin I Antibody - Product Information

Application	**WB, IHC, E**
Primary Accession	P21579
Other Accession	NP_005630, 6857, 20979 (mouse), 25716 (rat)
Reactivity	**Human**
Predicted	**Mouse, Rat, Dog, Cow**
Host	**Goat**
Clonality	**Polyclonal**
Concentration	**0.5mg/ml**
Isotype	**IgG**
Calculated MW	**47573**

Synaptotagmin I Antibody - Additional Information

Gene ID 6857

Other Names
Synaptotagmin-1, Synaptotagmin I, SytI, p65, SYT1, SVP65, SYT

Format
0.5 mg IgG/ml in Tris saline (20mM Tris pH7.3, 150mM NaCl), 0.02% sodium azide, with 0.5% bovine serum albumin

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
Synaptotagmin I Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Synaptotagmin I Antibody - 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).

Synaptotagmin I Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Synaptotagmin I Antibody - Images



AF2057a (1µg/ml) staining of Human Hippocampus lysate (35µg protein in RIPA buffer). Primary incubation was 1 hour. Detected by chemiluminescence.

Synaptotagmin I Antibody - Background

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-1 participates in triggering neurotransmitter release at the synapse (Fernandez-Chacon et al., 2001 [PubMed 11242035]).

Synaptotagmin I Antibody - References

Personalized smoking cessation: interactions between nicotine dose, dependence and quit-success genotype score. Rose JE, et al. Mol Med, 2010 Jul-Aug. PMID 20379614.
A meta-analysis of genome-wide data from five European isolates reveals an association of COL22A1, SYT1, and GABRR2 with serum creatinine level. Pattaro C, et al. BMC Med Genet, 2010 Mar 11. PMID 20222955.
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NMR characterization of copper and lipid interactions of the C2B domain of synaptotagmin I-relevance to the non-classical secretion of the human acidic fibroblast growth factor (hFGF-1). Kathir KM, et al. Biochim Biophys Acta, 2010 Feb. PMID 19835837.
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