10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

Synaptotagmin Antibody
Rabbit Polyclonal Antibody
Catalog # ABV10145

Specification

Synaptotagmin Antibody - Product Information

Application	**WB**
Primary Accession	P21707
Reactivity	**Human, Mouse, Rat**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Calculated MW	**47399**

Synaptotagmin Antibody - Additional Information

Gene ID 25716

Positive Control	**Rat kidney tissue lysate**
Application & Usage	**The antibody can be used in Western Blot analysis (1-4 µg/ml). However, the optimal concentrations should be determined individually. Blocking peptide is available separately.**

Other Names
Synaptotagmin-1, Synaptotagmin I, SytI, p65, Syt1

Target/Specificity
Synaptotagmin

Antibody Form
Liquid

Appearance
Colorless liquid

Formulation
100 µg (0.5 mg/ml) affinity purified rabbit anti- Synaptotagmin polyclonal antibody in phosphate buffered saline (PBS), pH 7.2, containing 30% glycerol, 0.5% BSA, 5 mM EDTA and 0.01% thimerosal.

Handling
The antibody solution should be gently mixed before use.

Reconstitution & Storage
-20 °C

Background Descriptions

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

Synaptotagmin Antibody - Protein Information

Name Syt1 {ECO:0000312|RGD:3803}

Function
Calcium sensor that participates in triggering neurotransmitter release at the synapse (PubMed:2333096, PubMed:30107533). 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. Plays a role in dendrite formation by melanocytes.

Cellular Location
Cytoplasmic vesicle, secretory vesicle membrane; Single-pass membrane protein. Cytoplasmic vesicle, secretory vesicle, synaptic vesicle membrane; Single-pass membrane protein. Cytoplasmic vesicle, secretory vesicle, chromaffin granule membrane; Single-pass membrane protein. Cytoplasm

Tissue Location
Expressed in the brain (at protein level) (PubMed:17190793). Predominantly expressed in rostral, phylogenetically younger brain regions, and in some endocrine tissues

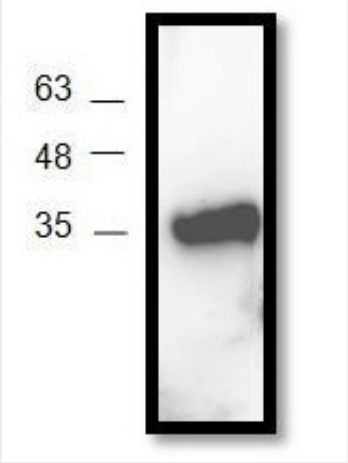
Synaptotagmin Antibody - Protocols

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 Antibody - Images

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Western blot analysis of Synaptotagmin 1 using rat kidney tissue lysate

Synaptotagmin Antibody - Background

The synaptotagmins are integral membrane proteins of synaptic vesicles tho µght 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; neurexins, syntaxin and AP2.