

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 neuexins, 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

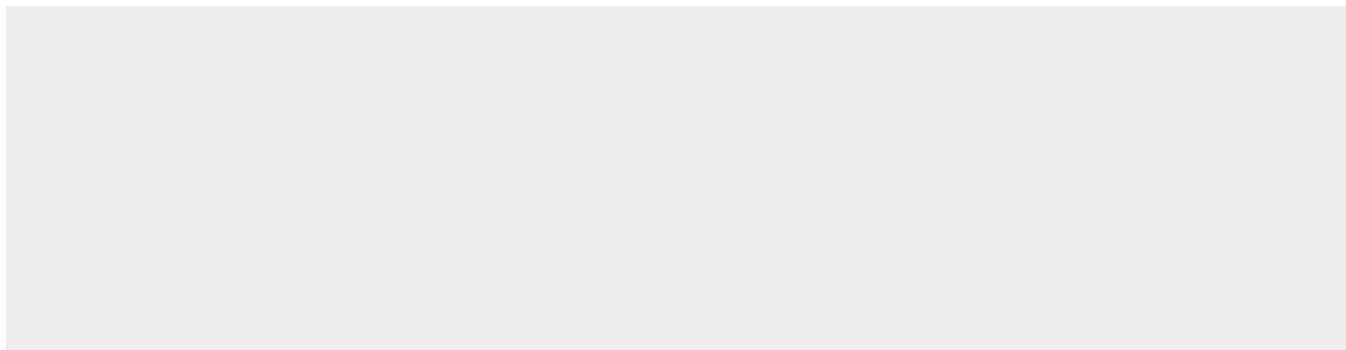
Tissue Location

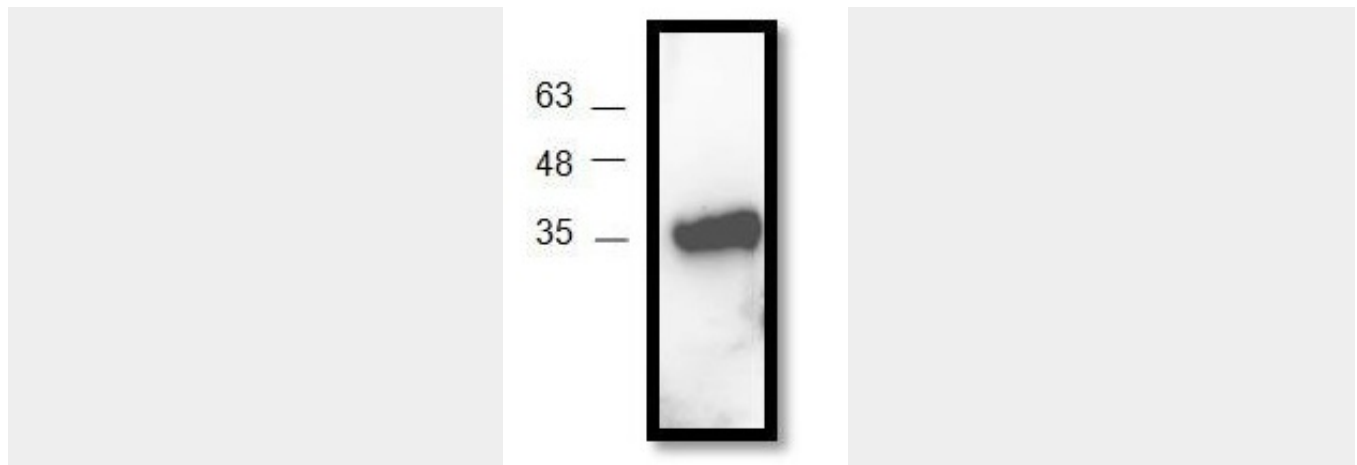
Expressed in the brain (at protein level) (PubMed:17190793). Predominantly expressed in rostral, phylogenetically younger brain regions, and in some endocrine tissues

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 Cytometry](#)
- [Cell Culture](#)

Synaptotagmin Antibody - Images



Western blot analysis of Synaptotagmin 1 using rat kidney tissue lysate

Synaptotagmin 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 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 Synipin 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.