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

# Synaptotagmin Antibody
**Affinity purified rabbit polyclonal antibody**
**Catalog # AN1109**

## Specification

### Synaptotagmin Antibody - Product Information

| | |
|---|---|
| Application | **WB** |
| Primary Accession | P21707 |
| Reactivity | **Human, Mouse, Rat** |
| Predicted | **Bovine, Chicken, Human, Mouse, Monkey** |
| Host | **Rabbit** |
| Clonality | **polyclonal** |
| Calculated MW | **65 KDa** |

### Synaptotagmin Antibody - Additional Information

| | |
|---|---|
| Gene ID | **25716** |
| Gene Name | **SYT1** |

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

**Target/Specificity**
Synthetic peptide corresponding to amino acid residues specific to synaptotagmin 1 conjugated to KLH.

**Dilution**
WB~~ 1:1000

**Format**
Prepared from rabbit serum by affinity purification using a column to which the peptide immunogen was coupled

**Antibody Specificity**
Specific for ~65k synaptotagmin I protein

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

**Shipping**
Blue Ice

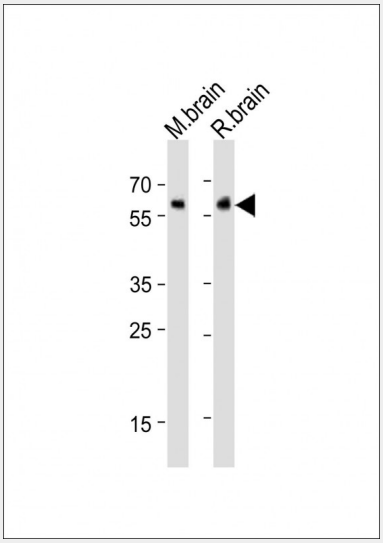
### Synaptotagmin Antibody - Protocols

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

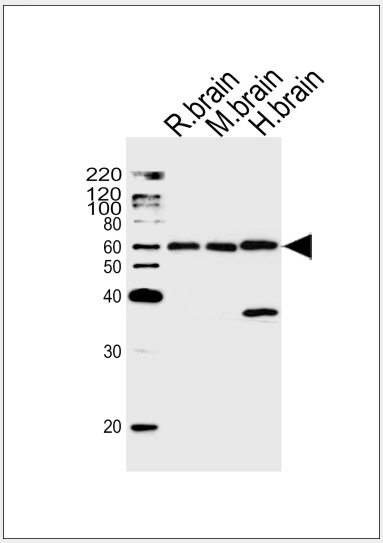
Provided below are standard protocols that you may find useful for product applications.

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

**Synaptotagmin Antibody - Images**

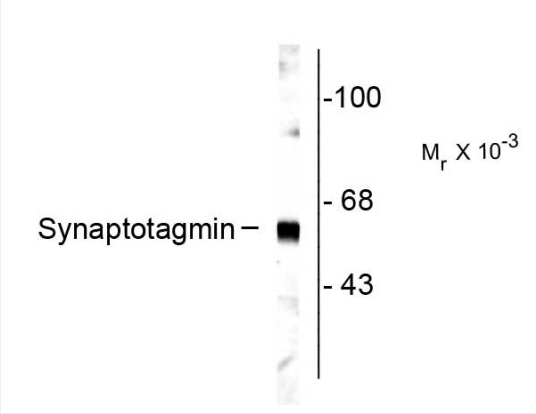



All lanes : Anti-Syt1 Antibody at 1:1000 dilution Lane 1: mouse brain lysate Lane 2: rat brain lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 48 kDa Blocking/Dilution buffer: 5% NFDM/TBST.




Western blot analysis of lysates from rat brain, mouse brain, human brain tissue lysate(from left to right), using Syt1 Antibody(Cat. #AN1109). AN1109 was diluted at 1:1000 at each lane. A goat anti-rabbit IgG H&L(HRP) at 1:5000 dilution was used as the secondary antibody. Lysates at 35ug

per lane.




Western blot of rat cortex lysate showing specific labeling of the ~65ksynaptotagmin protein.

**Synaptotagmin Antibody - Background**

Synaptotagmin 1 is a synaptic vesicle membrane glycoprotein that is widely expressed throughout the CNS and is generally thought to act as the Ca2+ sensor in the regulation of exocytosis and neurotransmitter release (Littleton and Bellen 1995). Recent studies indicate that synaptotagmin's Ca2+ mediated binding of SNAP25 is essential for the Ca2+ dependent triggering of membrane fusion (Zhang et al., 2002). It has recently been demonstrated that discrete residues within the c(2)b binding domain of synaptotagmin 1 independently specify endocytic rate and synaptic vesicle size (Poskanzer et al., 2006).

**Synaptotagmin Antibody - References**

Littleton JT, Bellen HJ (1995) Synaptotagmin controls and modulates synaptic vesicle fusion in a Ca(2+) dependent manner. Trends Neurosci. Apr;18(4):177-83.
Zhang X, Kim-Miller MJ, Fukuda M, Kowalchyk JA, Martin TF (2002) Ca2+ dependent synaptotagmin binding to SNAP25 is essential for Ca2+ triggered exocytosis. Neuron May 16;34(4):599-611.
Poskanzer KE, Fetter RD, Davis GW (2006) Discrete residues in the c(2)b domain of synaptotagmin 1 independently specify endocytic rate and synaptic vesicle size. Neuron Apr 6;50(1):49-62.