

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

### Specification

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#### Synaptotagmin Antibody - Product Information

Application	WB
Primary Accession	<a href="#">P21707</a>
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
<b>Other Names</b>	
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

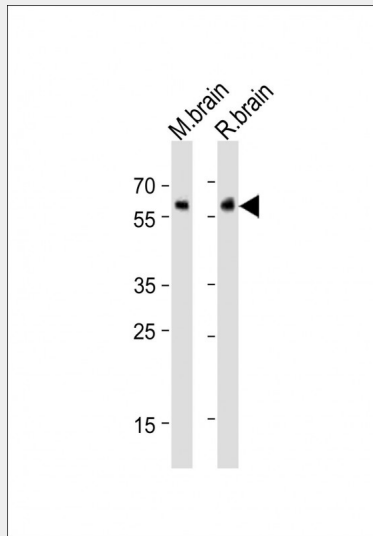
Blue Ice

#### Synaptotagmin Antibody - Protocols

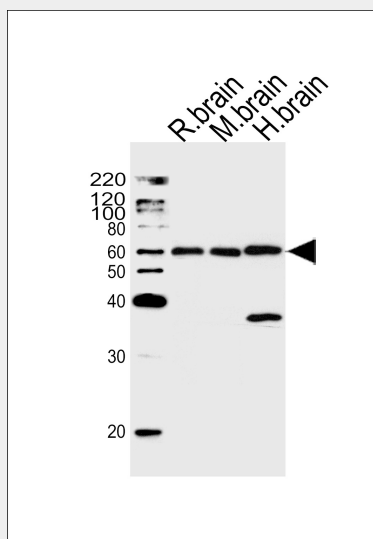
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

### Synaptotagmin Antibody - Images

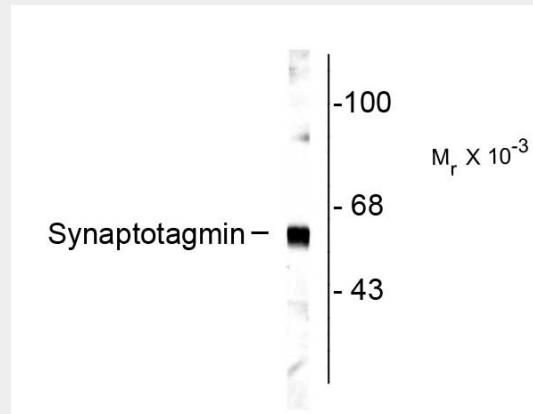


All lanes : Anti-Syt1 Antibody at 1:1000 dilution Lane 1: mouse brain lysate Lane 2: rat brain lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 48 kDa Blocking/Dilution buffer: 5% NFDm/TBST.



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 ~65k synaptotagmin 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  $\text{Ca}^{2+}$  sensor in the regulation of exocytosis and neurotransmitter release (Littleton and Bellen 1995). Recent studies indicate that synaptotagmin's  $\text{Ca}^{2+}$  mediated binding of SNAP25 is essential for the  $\text{Ca}^{2+}$  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  $\text{Ca}^{2+}$  dependent manner. *Trends Neurosci.* Apr;18(4):177-83.  
Zhang X, Kim-Miller MJ, Fukuda M, Kowalchuk JA, Martin TF (2002)  $\text{Ca}^{2+}$  dependent synaptotagmin binding to SNAP25 is essential for  $\text{Ca}^{2+}$  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.