

**Synaptotagmin-9 Antibody**  
**Synaptotagmin 9 Antibody, Clone S276-15**  
**Catalog # ASM10270**

**Specification**

---

**Synaptotagmin-9 Antibody - Product Information**

Application	<b>WB</b>
Primary Accession	<a href="#">O9R0N5</a>
Other Accession	<a href="#">NP_058604.1</a>
Host	<b>Mouse</b>
Isotype	<b>IgG1</b>
Reactivity	<b>Human, Mouse, Rat</b>
Clonality	<b>Monoclonal</b>

**Description**

Mouse Anti-Mouse Synaptotagmin-9 Monoclonal IgG1

**Target/Specificity**

Detects ~60kDa. Does not cross-react with other Synaptotagmin-1 or other Synaptotagmins.

**Other Names**

SYT-9 Antibody, SYT9 Antibody, Synaptotagmin 9 Antibody, Synaptotagmin IX Antibody, SytIX Antibody, Syt IX Antibody, Synaptotagmin9 Antibody, SynaptotagminIX Antibody, FLJ45896 Antibody

**Immunogen**

Fusion protein amino acids 253-344 (Cytoplasmic C2B domain) of mouse Synaptotagmin-9

**Purification**

Protein G Purified

Storage **-20°C**

**Storage Buffer**

PBS pH7.4, 50% glycerol, 0.09% sodium azide

Shipping Temperature

**Blue Ice or 4°C**

**Certificate of Analysis**

1 µg/ml of SMC-436 was sufficient for detection of Synaptotagmin-9 in 20 µg of transiently overexpressing synaptotagmin-9 COS cell lysate by colorimetric immunoblot analysis using Goat anti-mouse IgG:HRP as the secondary antibody.

**Cellular Localization**

Cytoplasmic Vesicle

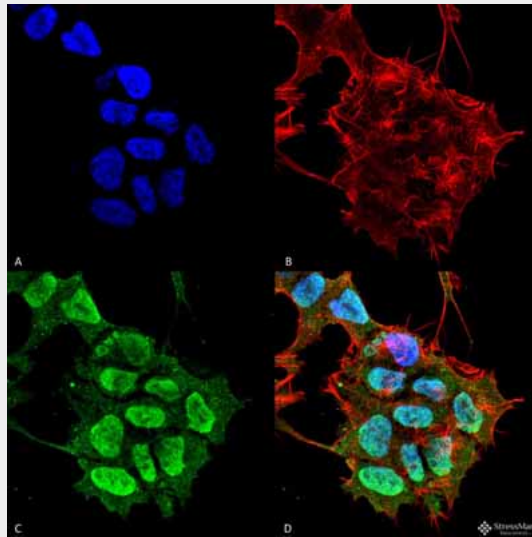
**Synaptotagmin-9 Antibody - Protocols**

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

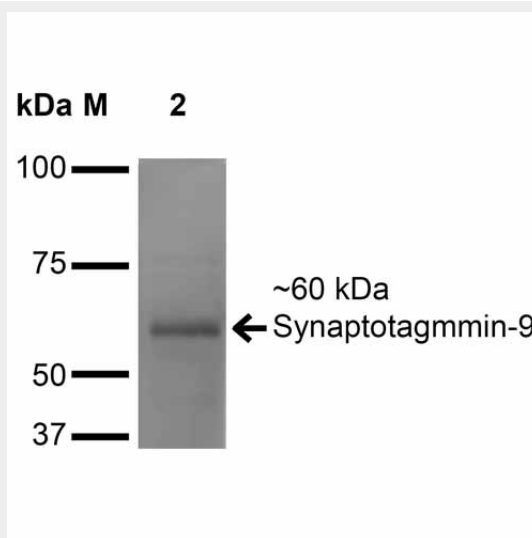
- [Western Blot](#)
- [Blocking Peptides](#)

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

### Synaptotagmin-9 Antibody - Images



Immunocytochemistry/Immunofluorescence analysis using Mouse Anti-Synaptotagmin-9 Monoclonal Antibody, Clone S276-15 (ASM10270). Tissue: Neuroblastoma cell line (SK-N-BE). Species: Human. Fixation: 4% Formaldehyde for 15 min at RT. Primary Antibody: Mouse Anti-Synaptotagmin-9 Monoclonal Antibody (ASM10270) at 1:100 for 60 min at RT. Secondary Antibody: Goat Anti-Mouse ATTO 488 at 1:100 for 60 min at RT. Counterstain: Phalloidin Texas Red F-Actin stain; DAPI (blue) nuclear stain at 1:1000; 1:5000 for 60 min RT, 5 min RT. Localization: Cytoplasmic Vesicle, Cytoplasm, Nucleus. Magnification: 60X. (A) DAPI (blue) nuclear stain (B) Phalloidin Texas Red F-Actin stain (C) Synaptotagmin-9 Antibody (D) Composite.



Western Blot analysis of Mouse Brain showing detection of ~60 kDa Synaptotagmin-9 protein using Mouse Anti-Synaptotagmin-9 Monoclonal Antibody, Clone S276-15 (ASM10270). Lane 1: MW Ladder. Lane 2: Mouse brain. Load: 20 µg. Block: 2% BSA and 2% Skim Milk in 1X TBST. Primary

Antibody: Mouse Anti-Synaptotagmin-9 Monoclonal Antibody (ASM10270) at 1:1000 for 16 hours at 4°C. Secondary Antibody: Goat Anti-Mouse IgG: HRP at 1:2000 for 60 min at RT. Color Development: ECL solution for 6 min in RT. Predicted/Observed Size: ~60 kDa.

### **Synaptotagmin-9 Antibody - Background**

Synaptotagmins constitute a family of membrane trafficking proteins that are characterized by an N-terminal transmembrane region (TMR), a variable linker, and two C-terminal C2 domains - C2A and C2B. There are 15 members in the mammalian synaptotagmin family. There are several C2-domain containing protein families that are related to synaptotagmins, including transmembrane (Ferlins, E-Syts, and MCTPs) and soluble (RIMs, Munc13s, synaptotagmin-related proteins and B/K) proteins.

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 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; these are neurexins, syntaxin and AP2 (1, 2).

### **Synaptotagmin-9 Antibody - References**

1. Schengrund C.L., et al. (2002) J Biol Chem. 277: 32815.
2. Reichardt L.F., et al. (1981) J Cell Biol. 91:257.