

Synaptotagmin-7 Antibody
Synaptotagmin 7 Antibody, Clone S275-14
Catalog # ASM10258**Specification**

Synaptotagmin-7 Antibody - Product Information

Application	WB
Primary Accession	O9R0N7
Other Accession	NP_061271.1
Host	Mouse
Isotype	IgG2B
Reactivity	Human, Mouse, Rat
Clonality	Monoclonal

Description

Mouse Anti-Mouse Synaptotagmin-7 Monoclonal IgG2B

Target/Specificity

Detects ~45kDa. Does not cross-react with Synaptotagmin-6 (or others). Can identify other isoforms bands at ~65kD.

Other Names

IPCA-7 Antibody, PCANAP7 Antibody, Prostate cancer-associated protein 7 Antibody, SYT-7 Antibody, SYT7 Antibody, Synaptotagmin 7 Antibody, Synaptotagmin VII Antibody, SytVII Antibody

Immunogen

Fusion protein amino acids 150-239 (Cytoplasmic C2A domain) of mouse Synaptotagmin-7

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-424 was sufficient for detection of Synaptotagmin-7 in 20 µg of rat brain lysate by colorimetric immunoblot analysis using Goat anti-mouse IgG:HRP as the secondary antibody.

Cellular Localization

Cytoplasmic Vesicle

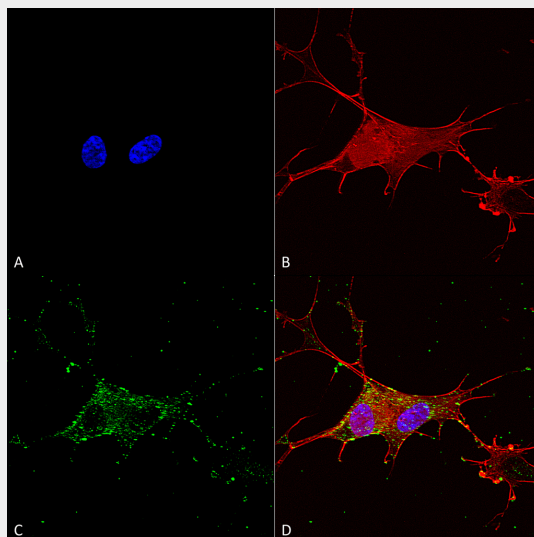
Synaptotagmin-7 Antibody - Protocols

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

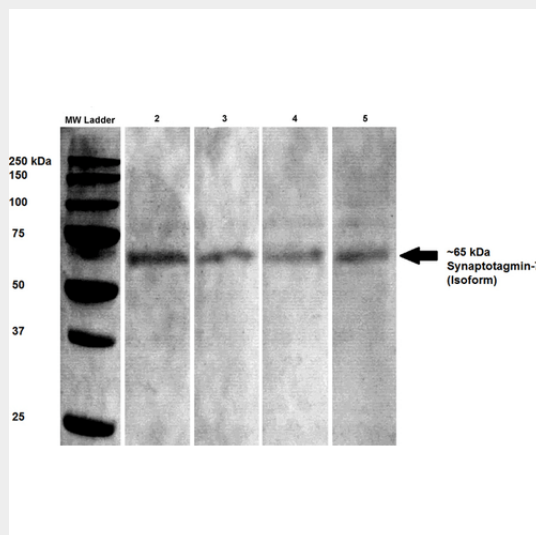
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)

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

Synaptotagmin-7 Antibody - Images



Immunocytochemistry/Immunofluorescence analysis using Mouse Anti-Synaptotagmin-7 Monoclonal Antibody, Clone N275/14 (ASM10258). Tissue: Neuroblastoma cells (SH-SY5Y). Species: Human. Fixation: 4% PFA for 15 min. Primary Antibody: Mouse Anti-Synaptotagmin-7 Monoclonal Antibody (ASM10258) at 1:100 for overnight at 4°C with slow rocking. Secondary Antibody: AlexaFluor 488 at 1:1000 for 1 hour at RT. Counterstain: Phalloidin-iFluor 647 (red) F-Actin stain; Hoechst (blue) nuclear stain at 1:800, 1.6mM for 20 min at RT. (A) Hoechst (blue) nuclear stain. (B) Phalloidin-iFluor 647 (red) F-Actin stain. (C) Synaptotagmin-7 Antibody (D) Composite.



Western Blot analysis of Rat brain lysates showing detection of Synaptotagmin 7 protein using Mouse Anti-Synaptotagmin 7 Monoclonal Antibody, Clone N275/14 (ASM10258). Primary Antibody: Mouse Anti-Synaptotagmin 7 Monoclonal Antibody (ASM10258) at 1:100, 1:250, 1:500, and 1:1000.

Synaptotagmin-7 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 diacylbackbone. 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.

Synaptotagmin-7 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.