

## Synaptotagmin-7 Antibody

### Synaptotagmin 7 Antibody, Clone S275-14

Catalog # ASM10258

### Specification

#### Synaptotagmin-7 Antibody - Product Information

Application **ICC/IF, WB**  
Primary Accession [O9RON7](#)  
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**

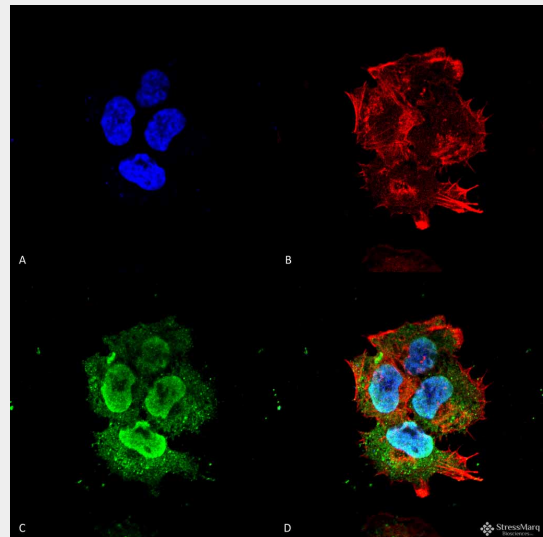
#### Storage Buffer

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

Shipping **Blue Ice or 4°C**  
Temperature

#### 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.



Immunocytochemistry/Immunofluorescence analysis using Mouse Anti-Synaptotagmin-7 Monoclonal Antibody, Clone S275-14 (ASM10258). Tissue: Neuroblastoma cell line (SK-N-BE). Species: Human. Fixation: 4% Formaldehyde for 15 min at RT. Primary Antibody: Mouse Anti-Synaptotagmin-7 Monoclonal Antibody (ASM10258) 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, Nucleus. Magnification: 60X. (A) DAPI (blue) nuclear stain (B) Phalloidin Texas Red F-Actin stain (C) Synaptotagmin-7 Antibody (D) Composite.

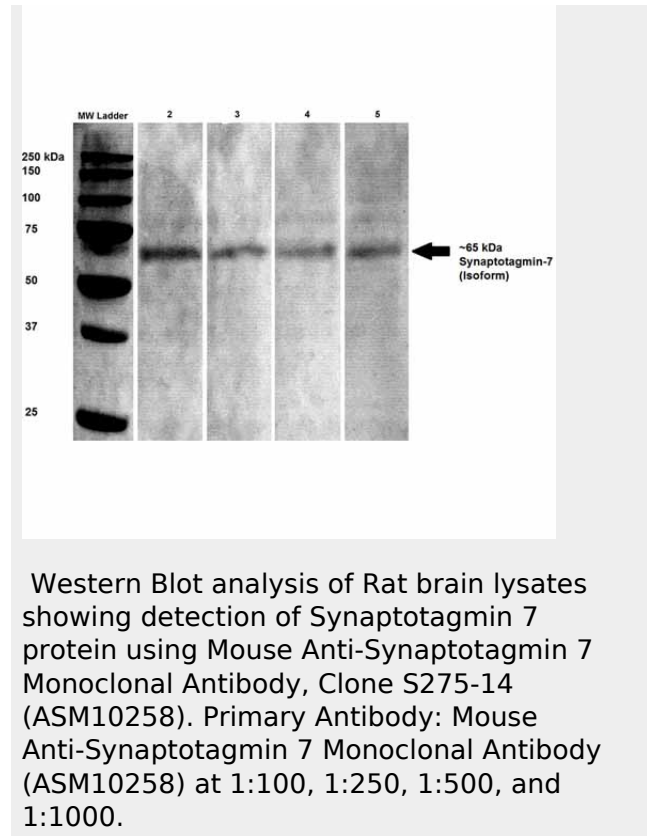
## Cellular Localization

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 - 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<sup>2+</sup> 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<sup>2+</sup>-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.