

Datasheet for ABIN2482945
anti-SYT7 antibody (AA 150-239) (FITC)[Go to Product page](#)

3 Images

Overview

| | |
|----------------------|---|
| Quantity: | 100 µg |
| Target: | SYT7 |
| Binding Specificity: | AA 150-239 |
| Reactivity: | Mouse |
| Host: | Mouse |
| Clonality: | Monoclonal |
| Conjugate: | This SYT7 antibody is conjugated to FITC |
| Application: | Western Blotting (WB), Immunohistochemistry (IHC), Immunocytochemistry (ICC), Immunofluorescence (IF) |

Product Details

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|-------------------|---|
| Immunogen: | Fusion protein amino acids 150-239 (Cytoplasmic C2A domain) of mouse Synaptotagmin-7 |
| Clone: | S275-14 |
| Isotype: | IgG2b |
| Specificity: | Detects ~45 kDa. Does not cross-react with Synaptotagmin-6 (or others). Can identify other isoforms bands at ~65kD. |
| Cross-Reactivity: | Human, Mouse, Rat |
| Purification: | Protein G Purified |

Target Details

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|-------------------|--|
| Target: | SYT7 |
| Alternative Name: | Synaptotagmin 7 (SYT7 Products) |
| Background: | <p>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.</p> |
| Gene ID: | 54525 |
| NCBI Accession: | NP_061271 |
| UniProt: | Q9R0N7 |
| Pathways: | Synaptic Vesicle Exocytosis |

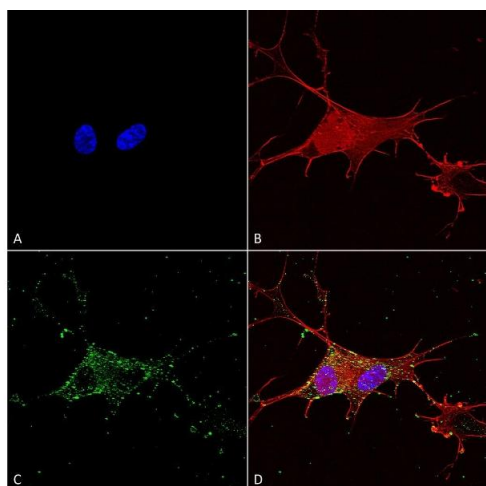
Application Details

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|--------------------|--|
| Application Notes: | <ul style="list-style-type: none">• WB (1:1000)• ICC/IF (1:100)• optimal dilutions for assays should be determined by the user. |
| Comment: | 1 µg/ml of ABIN2482945 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. |
| Restrictions: | For Research Use only |

Handling

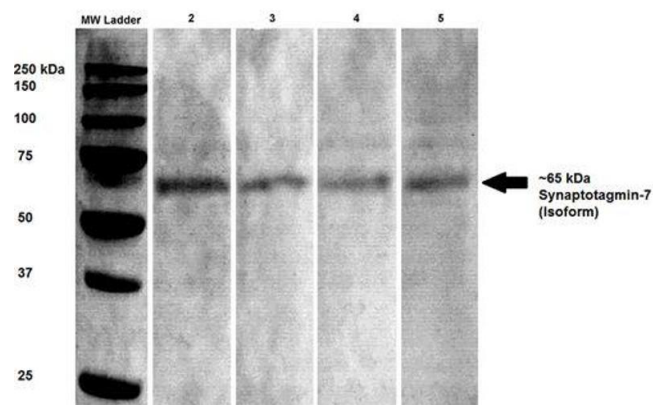
| | |
|--------------------|--|
| Format: | Liquid |
| Concentration: | 1 mg/mL |
| Buffer: | PBS pH 7.4, 50 % glycerol, 0.09 % sodium azide, Storage buffer may change when conjugated |
| Preservative: | Sodium azide |
| Precaution of Use: | This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only. |
| Storage: | 4 °C |
| Storage Comment: | Conjugated antibodies should be stored at 4°C |

Images



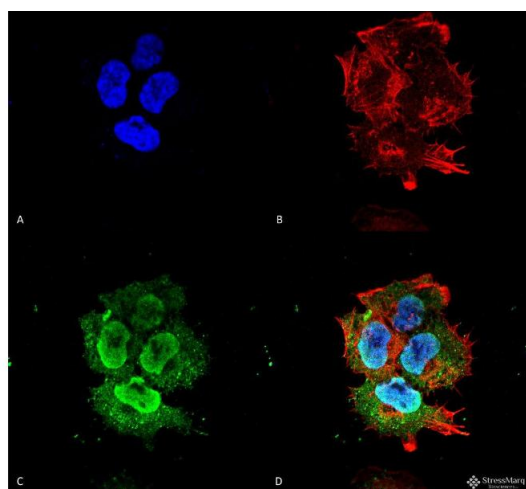
Immunocytochemistry

Image 1. Immunocytochemistry/Immunofluorescence analysis using Mouse Anti-Synaptotagmin-7 Monoclonal Antibody, Clone S275-14 (ABIN2482945). Tissue: Neuroblastoma cells (SH-SY5Y). Species: Human. Fixation: 4 % PFA for 15 min. Primary Antibody: Mouse Anti-Synaptotagmin-7 Monoclonal Antibody (ABIN2482945) 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, 1.6 mM 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 Blotting

Image 2. Western Blot analysis of Rat brain lysates showing detection of Synaptotagmin 7 protein using Mouse Anti-Synaptotagmin 7 Monoclonal Antibody, Clone S275-14 . Primary Antibody: Mouse Anti-Synaptotagmin 7 Monoclonal Antibody at 1:100, 1:250, 1:500, and 1:1000.



Immunofluorescence (fixed cells)

Image 3. Immunocytochemistry/Immunofluorescence analysis using Mouse Anti-Synaptotagmin-7 Monoclonal Antibody, Clone S275-14 . 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 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.