

Datasheet for ABIN1686633
anti-SYT7 antibody (AA 150-239)[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 un-conjugated
Application:	Western Blotting (WB), Immunohistochemistry (IHC), Immunocytochemistry (ICC), Immunofluorescence (IF)

Product Details

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

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

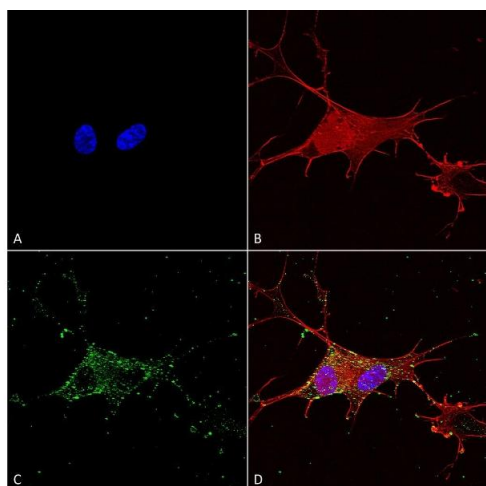
Application Details

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 ABIN1686633 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

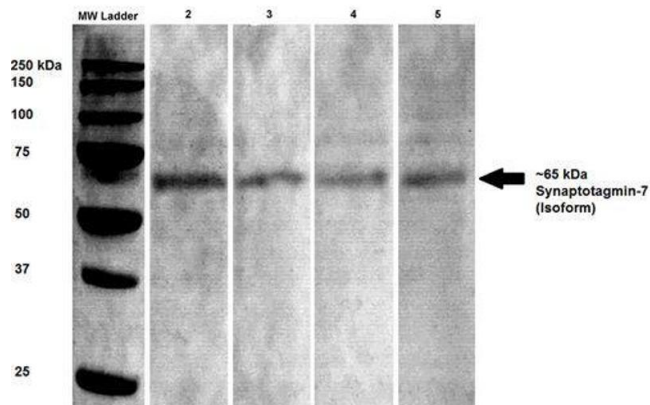
Format:	Liquid
Concentration:	1 mg/mL
Buffer:	PBS pH 7.4, 50 % glycerol, 0.09 % sodium azide, Storage buffer may change when conjugated
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	-20 °C
Storage Comment:	-20°C

Images



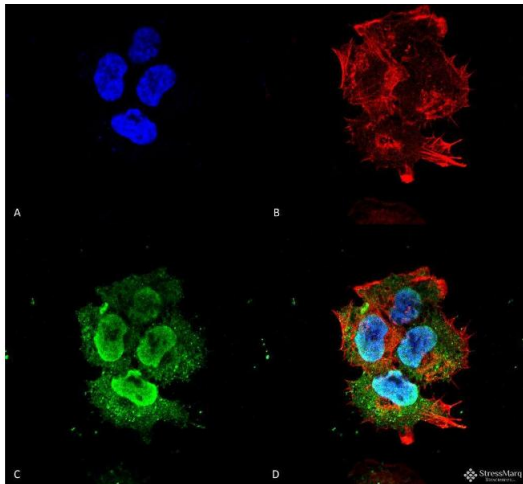
Immunocytochemistry

Image 1. Immunocytochemistry/Immunofluorescence analysis using Mouse Anti-Synaptotagmin-7 Monoclonal Antibody, Clone S275-14 (ABIN1686633). Tissue: Neuroblastoma cells (SH-SY5Y). Species: Human. Fixation: 4 % PFA for 15 min. Primary Antibody: Mouse Anti-Synaptotagmin-7 Monoclonal Antibody (ABIN1686633) 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.