Synaptotagmin-12 Antibody, S277-7

Mouse Anti-Mouse Synaptotagmin-12 Monoclonal IgG1

Catalog No. SMC-437

StressMarq Biosciences INC.

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Overview	
Product Name	Anti-Synaptotagmin-12 Antibody: Clone S277-7
Sizes Available	100 µg (Catalog No. SMC-437D)
Species Reactivity	Mouse | Rat
Tested Applications	WB | IHC | ICC/IF
Antibody Dilution	WB (1:1000); optimal dilutions for assays should be determined by the user.
Immunogen	Fusion protein amino acids 168-255 (Cytoplasmic C2A domain) of mouse Synaptotagmin-12
Concentration	1 mg/ml

Properties	
Storage Buffer	PBS pH7.4, 50% glycerol, 0.09% sodium azide
Storage Conditions/ Shipping Temperature	-20ºC; 1 year+ Avoid freeze/ thaw cycle. Blue Ice or 4ºC.
Purification	Protein G Purified
Product Type	Monoclonal
Clone Number	S277-7
Isotype	IgG1
Specificity	Detects ~45kDa. Does not cross-react with Synaptotagmin-6 or other Synaptotagmins.
Certificate of Analysis	1 µg/ml of SMC-437 was sufficient for detection of Synaptotagmin-12 in 20 µg of transiently overexpressing synaptotagmin-12 COS cell lysate by colorimetric immunoblot analysis using Goat anti-mouse IgG:HRP as the secondary antibody.

Biological Description	
Alternative Name(s)	SYT-12 Antibody, SYT12 Antibody, Synaptotagmin 12 Antibody, Synaptotagmin XII Antibody, SytXII Antibody, Syt XII Antibody, Synaptotagmin12 Antibody, SynaptotagminXII Antibody
Research Area(s)	Neuroscience | Cell Structure | Pre-Synaptic Markers
Cellular Localization	Cytoplasmic Vesicle
Sequence References	Gene ID: 171180; Accession Number: NP_598925.1; Swiss Prot: Q920N7
Function	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). 1. Schengrund C.L., et al. (2002) J Biol Chem. 277: 32815. 2. Reichardt L.F., et al. (1981) J Cell Biol. 91:257.

Please Note: All products are for in vitro research use only and are not intended for use in humans or animals.

StressMarq Biosciences Inc. | PO Box 55036 Cadboro Bay | Victoria BC V8N 4G0 | Canada
www.stressmarq.com | Phone: +1 250 294 9065 | Fax: +1 250 294 9025 | E-mail: sales@stressmarq.com

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Material Safety Data Sheet

Anti-Synaptotagmin-12 Antibody (Monoclonal) SMC-437

This product is for *in vitro* research use only and is not intended for use in humans or animals

The below information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. StressMarq shall not be held liable for any damage resulting from handling or from contact with the above product. See the Technical Specification, Packing Slip, Invoice, and Product Catalogue for additional terms and conditions of sale.

Hazardous Ingredients

The physical, chemical and toxicological properties of these components have not been fully investigated. It is recommended that all laboratory personnel follow standard laboratory safety procedures when handling this product. Safety procedures should include wearing OSHA approved safety glasses, gloves and protective clothing. Direct physical contact with this product should be avoided.

Chemical Name	CAS No.	Percent
Sodium Azide	26628-22-8	0.09-0.1%

Physical Data

This product consists of Mouse immunoglobulin in PBS pH7.4, 50% glycerol, 0.09% sodium azide, shipped on gel packs.
The physical properties of this product have not been investigated thoroughly.

Fire and Explosion Hazard and Reactivity Data

NOT APPLICABLE

Toxicological Properties

May be harmful by inhalation, ingestion, or skin absorption. The toxicological properties of this product have not been investigated thoroughly. Exercise due caution.

Preventative Measures

Wear chemical safety goggles and compatible chemical-resistant gloves. Avoid inhalation, contact with eyes, skin or clothing.

Spill and Leak Procedures

Observe all federal, state and local environmental regulations.

- Wear protective equipment.
- Absorb on sand or vermiculite and place in closed containers for disposal.
- Dispose or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

First Aid Measures

- If swallowed, wash out mouth with water, provided person is conscious. Call a physician.
- In case of skin contact, flush with copious amounts of water for at least 15 minutes. Remove contaminated clothing and shoes. If a rash or other irritation develops, call a physician.
- If inhaled, remove to fresh air. If breathing becomes difficult, call a physician.
- In case of eye contact, flush with copious amounts of water for at least 15 minutes while separating the eyelids with fingers. Call a physician.

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