

Anti-SAP102

Catalog# SMC-134 C/D

Size: 25/100µg

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

StressMarq

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Product	Mouse anti-Sap102 antibody; monoclonal
Clone	S19-2
Immunogen	Fusion protein amino acids 1-120 of rat SAP102 (accession number Q62936).
Host and Subclass	Mouse, IgG ₁
Cited Applications	WB, IHC, IP.
Specificity	~105 kDa. No cross-reactivity against PSD-95, SAP97, Chapsyn-110.
Species Cross-Reactivity	Mouse, Rat, Human.
Format	Protein G Purified. In PBS pH 7.4, 0.09% sodium azide and 50% glycerol.
Concentration and working dilution	1mg/mL WB: 1:1000 (ECL)
Storage and stability	-20°C; 1 year+; shipped on cold packs

Scientific Background

Synapse-associated protein 102 belongs to the membrane-associated guanylate kinase protein family and is a homolog of the Drosophila disc large tumor suppressor protein. SAP102 has extensive sequence homology to the PSD 95 family of proteins that facilitate ion channel clustering at synaptic terminal (1, 2). SAP102 consists of three 90 amino acids PDZ domains at its amino terminus, a Src homology 3 domain and a guanylate kinase domain (3). All three PDZ domains of SAP102 participate in binding to the NMDA receptor, interacting specifically with the carboxy-terminal domain of the N-methyl-D-aspartate receptor 2B (NR2B). The interaction may facilitate AMPA receptor withdrawal from the

postsynaptic membrane by inhibiting the ERK/MAPK pathway (3, 4). SAP102 also interacts with synaptic ras-GTPase activating protein synGAP through its PDZ domains (3).

In general, the SAP102 protein is more highly expressed in non-proliferating cells than in proliferating cells, indicating a role in the negative regulation of cell growth.

Selected References

1. Muller B.M., *et al.* (1996) *Neuron* 17: 255-265.
2. Lau L. F., *et al.* (1996) *J. Biol. Chem.* 271: 21622-21628.
3. Cuthbert P.C., *et al.* (2007) *J Neuroscience* 27:2673-2682.
4. Lau L.F., *et al.* (1996) *J Biol Chem* 274:5782-5790.

Certificate of Analysis

1 µg/mL of SMC-134 was sufficient for detection of SAP102 in 10µg of rat brain lysate by colorimetric immunoblot analysis using Goat anti-mouse IgG:HRP as the secondary antibody.

Material Safety Data Sheet

SAP102 Monoclonal SMC-134

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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.

<u>Known Hazardous Components</u>	<u>CAS Number</u>	<u>Percent</u>
Sodium Azide	26628-22-8	0.09

Physical Data

This product consists of mouse immunoglobulin in PBS containing 0.09% sodium azide in 50% glycerol, 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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