

Anti-CASK

Catalog# SMC-366D

Size: 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-CASK scaffolding protein, monoclonal antibody
Clone	S56A-50
Immunogen	Fusion protein amino acids 318-415 of rat CASK/Lin2 (accession number Q62915).
Host and Subclass	Mouse IgG ₁
Applications	WB, IHC, IP
Specificity	Detects ~100kDa
Species cross-reactivity	Mouse, Rat, Human, Zebrafish, <i>Xenopus</i>
Format	Mouse immunoglobulin in PBS pH 7.4, in 0.09% azide in 50% glycerol. Protein G purified.
Concentration and working dilution	1.0mg/mL; 1:1000 WB
Storage and stability	-20°C; 1 year+; shipped on cold packs or ambient

Scientific Background

CASK (calmodulin sensitive kinase) is a ~112kDa member of the membrane associated quanylate kinase (MAGUK) protein family. It is an adaptor protein with a calcium/calmodulin-dependent protein kinase domain, a SH3 domain, a guanylate kinase homology domain (GUK) and a PDZ domain. CASK links transmembrane proteins to the cytoskeleton and signaling molecules. In particular, CASK binds to Neurexin to stabilize pre- and

post-synaptic structures (1). While most of CASK proteins are cytoplasmic, a portion of the protein enters the nucleus, where it acts as a transcriptional co-activator (2). Manifesting the importance of CASK, transgenic mice with insertional mutations die within 24 hours of births (3). CASK is also localized in the nuclei of basal keratinocytes in newborn rodent skin and developing hair follicles. It may play a role in wound healing (4).

Selected References

1. Hata Y., *et al.* (1996). *J Neurosci.* 16: 2488-2494.
2. Hsueh Y.P., *et al.* (2000) *Nature.* 404: 298-302.
3. Lavery H.G., and Wilson J.B. (1998) *Genomics.* 53: 29-41.
4. Ojeh N., Pekovic V., Jahoda C., and Maatta A. (2008) *J Cell Sci.* 121(16): 2705-2717.

Certificate of Analysis

1 µg/mL of SMC-366 was sufficient for detection of CASK in 20 µg of rat brain tissue extract by ECL immunoblot analysis using Goat anti-mouse IgG:HRP as the secondary antibody.

Material Safety Data Sheet

Anti-CASK (Monoclonal Antibody) SMC-366

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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% 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.

Authorized: StressMarq Biosciences Inc.

Creation Date: 07/20/2010