

Anti-ATF4

Catalog# SMC-447D

Size: 100µg

PO Box 55036 Cadboro Bay
3825 Cadboro Bay Rd
Victoria, BC V8N 4G0, Canada

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

StressMarq Biosciences Inc.

Orders • sales@stressmarq.com
Tel: • +1 250 294 9065
Fax: • +1 250 294 9025
Email • info@stressmarq.com
Web • www.stressmarq.com

Product	Mouse anti-ATF4 antibody; monoclonal
Clone	S360A-24
Immunogen	Fusion protein amino acids 25-327 (nearly full-length, all but first 24 amino acids) of human ATF4 (accession # P18848). 86% identical to rat, and 85% identical to mouse. <50% identity with ATF5.
Host and Subclass	Mouse, IgG2 _a
Cited Applications	WB, ICC, IHC
Specificity	Detects 60 kDa protein. Does not cross-react with ATF5
Species cross-reactivity	Human, Rat
Format	Protein G Purified. In PBS pH 7.4, 0.09% NaN ₃ and 50% glycerol.
Concentration and Working Dilution	1mg/ml; 1:1000 (WB)
Storage and stability	-20°C; 1 year+; shipped on cold packs or ambient

Certificate of Analysis

1µg/mL of SMC-447 was sufficient for detection of ATF4 in 20 µg of rat brain lysate by colorimetric immunoblot analysis using Goat anti-mouse IgG:HRP as the secondary antibody.

Scientific Background

Cyclic AMP-dependent transcription factor ATF-4 (ATF4) is a basic leucine-zipper (bZip) transcription factor, which regulates amino acid metabolism, DNA damage repair, chromatin remodeling, and apoptosis in response to cellular and ER stress. ATF4 works with various proteins, such as C/EBP homology protein (CHOP), asparagine synthetase (ASNS), and cAMP response element (CRE) among others to mediate cellular stress. ATF4 also regulates glucose homeostasis by suppressing beta-cell proliferation and insulin production. Furthermore, ATF4 targets the histone demethylase JMJD3 to alter chromatin structure and enhance gene transcription in response to amino acid deprivation.

Material Safety Data Sheet

Anti-ATF4 (Monoclonal Antibody) SMC-447

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.

<u>Known Hazardous Components</u>	<u>CAS Number</u>	<u>Percent</u>
None		

Physical Data

This product consists of whole rabbit serum 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: 11/1/2013