

Anti-p53

Catalog# SMC-183D

Size: 100µg

PO Box 30244, Suite 405,
3989 Quadra Street,
Victoria, BC V8X 5E1, 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	Rabbit anti-p53 antibody; monoclonal
Clone	PAb1801
Immunogen	Fusion protein (Human), amino acids 46-53.
Host and Subclass	Mouse Monoclonal; 1gG ₁
Applications	ELISA, WB, Flow Cyt., IHC-Fr, IHC-P, IP, RIA
Specificity	Detects ~53kDa.
Species cross-reactivity	Human
Format	Protein A Purified. In PBS pH7.4, 50% glycerol and 0.09% sodium azide.
Concentration and working dilution	1mg/mL; 1:1000-1:2000 (WB), 10µg/mg (IP), 1:100-1:250 (IHC-Fr)
Storage and stability	-20°C; 1 year+; shipped on cold packs or ambient

Scientific Background

The p53 protein (tumor protein 53 or TP53) is a DNA-binding cell cycle-regulating transcription factor that governs cell division and the fine balance between cell death and cell survival (1). P53 plays a critical role in tumor suppression and hence it is often described as "the guardian of the genome", "the guardian angel gene", or the "master watchman." This also refers to its role in conserving stability by preventing genome mutation (2). Defects in p53 are linked to >50% of human

cancers, and restoring p53 function to these cancer cells can induce growth arrest and apoptosis (3). When p53 has been damaged, it can also lead to autoimmune disorders (4, 5).

Selected References

1. Georescu C.V., Saftoiu A., Georgescu C.C., Ciurea R. and Ciurea T. (2007) *J Gastrointestin Liver Dis.* 16(2): 133-9.
2. Strachan T., *et al.* (1999) *Human Molecular Genetics* 2. Ch. 18: Cancer Genetics.
3. Hansen J.E., *et al.* (2007) *Cancer Research* 67: 1769-1774.
4. Di Cesare E., *et al.* (2001) *Ann Clin Lab Sci* 31: 253-8.
5. Akere A., Otegbayo J.A. (2007) *Singapore Med J.* 48(1): 41-4.

Certificate of Analysis

1 µg/mL of SMC-183 was sufficient for detection of p53 in 10µg of HeLa cell lysate by colorimetric immunoblot analysis using Goat anti-mouse IgG:HRP as the secondary antibody.

Material Safety Data Sheet

Anti-p53 (Monoclonal Antibody) SMC-183

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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>
None		

Physical Data

This product consists of rabbit immunoglobulin in PBS 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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