

Anti-Methylated Lysine:HRP

Catalog# SPC-160F

Size: 400µl

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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	Rabbit anti-methylated lysine antibody, HRP conjugate; polyclonal
Clone	N/A
Immunogen	Methylated KLH
Host and Subclass	Rabbit polyclonal
Cited Applications	WB (4), ELISA
Specificity	Detects proteins containing methylated lysine residues in SDS-PAGE immunoblots.
Species cross-reactivity	Multi-species
Format	In PBS pH7, 50% glycerol. Affinity Purified
Concentration and working dilution	250µg/mL; 1:2000-1:5000 (WB)
Storage and stability	-20°C; 1 year+; shipped on cold packs or ambient

Scientific Background

Post-translational modifications of proteins play critical roles in the regulation and function of many known biological processes. Proteins can be post-translationally modified in many different ways, and a common post-transcriptional modification of Lysine involves methylation (1). Lysine can be methylated once, twice or three times by lysine methyltransferases. The transfer of methyl groups from S-adenosyl methionine to histones is catalyzed by enzymes known as histone methyltransferases. Histones which are methylated on certain residues can act epigenetically to repress or activate gene expression (1, 2).

The transcriptional repressor SUV39H1 can encode novel enzymes which selectively methylate histone H3 at lysine 9. SUV39H1 places a methyl marker on histone H3, which is then recognized by HP1 through its chromo domain. This model may also explain the stable inheritance of the

heterochromatic state (3). Some studies have also speculated a stimulatory role for transcription by methylated histone lysine 4 due to its presence at active transcription sites (4-6).

Selected References

1. Yang XJ. (2005). *Oncogene*. 24:1653-1662.
2. Melcher M. *et al.* (2000). *Mol Cell Biol* 20: 3728- 3741.
3. Bannister AJ. *et al.* (2001). *Nature* 410(6824):120-4.
4. Im H. *et al.* (2003). *J Biol Chem*. 278: 18346-18352.
5. Ng H.H., *et al.* (2002). *J Biol Chem*. 277: 34655-34657.
6. Zegerman P., *et al.* (2002). *J Biol Chem*. 277: 11621-11624.

Certificate of Analysis

0.2-0.5 µg/mL of SPC-160 was sufficient for detection of the methylated histone by western blot analysis using melanoma cells in TBSt.

Material Safety Data Sheet

Anti-Methylated Lysine: HRP (Polyclonal Antibody) SPC-160

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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 buffer, 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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