

Anti-MMP9 metalloproteinase Catalog# SMC-396D

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

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| Product | Mouse anti-MMP9 metalloproteinase monoclonal |
| Clone | S51-82 |
| Immunogen | Fusion protein amino acids 1-708 (full length) of rat MMP9 |
| Host and Subclass | Mouse monoclonal, IgG _{2A} |
| Cited Applications | IHC, WB, IP |
| Specificity | Detects ~92kDa and ~82kDa (Pro and Active Forms) |
| Species cross-reactivity | Human, Mouse, Rat. |
| Format | Protein G Purified. In PBS pH7.4, 50% glycerol and 0.09% sodium azide. |
| Concentration and working dilution | 1mg/mL |
| Storage and stability | -20°C; 1 year+; shipped on cold packs or ambient |

Selected References

1. Hirose Y., *et al.* (2008) *Am J Hum Genet.* 82(5): 1122-1129.
2. Coussens L.M., *et al.* (2002) *Science* 295: 2387-2391.
3. Sternlicht M.D., *et al.* (1999) *Cell* 98: 137-146.
4. Vu T.H., *et al.* (1998) *Cell* 93: 411-422.
5. Nagase H., *et al.* (1990) *Biochemistry* 29: 5783-5789.

Certificate of Analysis

1µg/mL of SMC-396 was sufficient for detection of MMP9 in 20µg of COS-1 cells (lysate) transfected with human MMP9 by colorimetric immunoblot analysis using goat anti-mouse IgG:HRP as the secondary antibody.

Scientific Background

MMP9, otherwise known as matrix metalloproteinase 9, is involved in the breakdown of extracellular matrix in normal physiological processes such as embryonic development, reproduction and tissue remodeling, as well as in disease processes like arthritis and metastasis (1).

Among the family members, MMP-2, MMP-3, MMP-7 and MMP-9 have been characterized as important factors for normal tissue remodeling during embryonic development, wound healing, tumor invasion, angiogenesis, carcinogenesis and apoptosis (2-4). MMP activity correlates with cancer development (2). One mechanism of MMP regulation is transcriptional (5). Once synthesized, MMP exists as a latent proenzyme. Maximum MMP activity requires proteolytic cleavage to generate active MMPs by releasing the inhibitory propeptide domain from the full length protein (5).

Material Safety Data Sheet

Anti-MMP9 (Monoclonal Antibody) SMC-396

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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.