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## Anti-Smooth Muscle Myosin Purified

**Catalog Number:** 14-6400

**Also known as:** smooth muscle myosin heavy chains, SM1 and SM2 isoforms

**RUO: For Research Use Only. Not for use in diagnostic procedures.**

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### Product Information

**Contents:** Anti-Smooth Muscle Myosin Purified

 **Catalog Number:** 14-6400

**Clone:** SMMS-1

**Concentration:** 0.5 mg/mL

**Host/Isotype:** Mouse IgG1

**Formulation:** aqueous buffer, 0.09% sodium azide, may contain carrier protein/stabilizer

**Temperature Limitation:** Store at 2-8°C.







**Batch Code:** Refer to vial

**Use By:** Refer to vial

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### Description

This SMMS-1 monoclonal antibody reacts with both isoforms of the human smooth muscle myosin heavy chain (SM1 and SM2) structural proteins, which are components of the contractile apparatus in smooth muscle cells. Smooth muscle myosin heavy chains are expressed by myoepithelial cells and also serve as the terminal differentiation marker for smooth muscle cells. In normal breast tissue, myoepithelial cells compose the outer layer of the lumen lining. In benign and in situ breast lesions, the intact myoepithelial layer stains with SMMS-1 and the loss of this staining indicates invasive cancer. This SMMS-1 antibody has also been reported to cross-react with bovine, canine, feline, and rat smooth muscle myosin heavy chains.

### Applications Reported

This SMMS-1 antibody has been reported for use in western blotting, and immunohistochemical staining of formalin-fixed paraffin embedded tissue sections.

### Applications Tested

This SMMS-1 antibody has been tested by western blot on rat heart and immunohistochemistry on formalin-fixed paraffin embedded tissue (with IHC Antigen Retrieval Solution – Low pH (cat. 00-4955)). This can be used at less than or equal to 5 ug/mL. It is recommended that the antibody be titrated for optimal performance in the assay of interest.

### References

Kalof AN, Tam D, Beatty B, Cooper K. Immunostaining patterns of myoepithelial cells in breast lesions: a comparison of CD10 and smooth muscle myosin heavy chain. *J Clin Pathol.* 2004 Jun;57(6):625-9. (SMMS-1, IHC-P)

Lazard D, Sastre X, Frid MG, Glukhova MA, Thiery JP, Koteliensky VE. Expression of smooth muscle-specific proteins in myoepithelium and stromal myofibroblasts of normal and malignant human breast tissue. *Proc Natl Acad Sci U S A.* 1993 Feb 1;90(3):999-1003. (SMMS-1, IHC-F)

### Related Products

00-4955 IHC Antigen Retrieval Solution – Low pH (10X)

14-4714 Mouse IgG1 K Isotype Control Purified (P3.6.2.8.1)

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