

**AM50166PU-S****Monoclonal Antibody to ACTA2 / aortic smooth muscle Actin - Purified**

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| <b>Alternate names:</b>              | ACTSA, ACTVS, Alpha-actin-2, Cell growth-inhibiting gene 46 protein  |
| <b>Quantity:</b>                     | 0.1 mg   |
| <b>Concentration:</b>                | 0.2 mg/ml  |
| <b>Uniprot ID:</b>                   | <a href="#">P62736</a>   |
| <b>NCBI:</b>                         | <a href="#">9606</a>   |
| <b>GeneID:</b>                       | <a href="#">59</a>   |
| <b>Host / Isotype:</b>               | Mouse / IgG2a  |
| <b>Recommended Isotype Controls:</b> | AM03096PU-N  |
| <b>Clone:</b>                        | SPM332   |
| <b>Immunogen:</b>                    | N-Terminal decapeptide of alpha smooth muscle isoform of actin and conjugated to KLH.<br><b>Genename:</b> ACTA2  |
| <b>Format:</b>                       | <b>State:</b> Liquid purified IgG fraction from Bioreactor Concentrate<br><b>Purification:</b> Protein A/G Chromatography<br><b>Buffer System:</b> 10mM PBS<br><b>Preservatives:</b> 0.05% Sodium Azide<br><b>Stabilizers:</b> 0.05% BSA   |
| <b>Applications:</b>                 | <b>Flow Cytometry:</b> 0.5-1 µg/million cells.<br><b>Immunofluorescence:</b> 0.5-1 µg/ml.<br><b>Western Blotting:</b> 0.5-1 µg/ml.<br><b>Immunoprecipitation:</b> 0.5-1 µg/500 µg protein lysate.<br><b>Immunohistology (Formalin-Fixed):</b> 0.5-1.0 µg/ml for 30 minutes at RT.<br>(Staining of Formalin-Fixed tissues requires boiling tissue sections in 10 mM citrate buffer, pH 6.0, for 10-20 min. followed by cooling at RT for 20 min.)<br><b><i>Positive Control:</i></b> Blood vessels in all tissues, smooth muscle or leiomyosarcoma.<br>Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user. |
| <b>Molecular Weight:</b>             | 42kDa  |

**Specificity:**

Actin is a major component of the cytoskeleton and is present in most cell types. This Monoclonal Antibody is highly specific to actin from smooth muscles. Its epitope lies in the first four N-terminal amino acids. This Monoclonal Antibody does not stain cardiac or skeletal muscle; however, it does stain myofibroblasts and myoepithelial cells. This antibody could be used together with anti-muscle specific actin and myogenin in making a diagnosis of smooth muscle and skeletal muscle tumors. In most cases of rhabdomyosarcoma, this antibody yields negative results whereas anti-muscle specific actin and myogenin are positive. Leiomyosarcomas are positive only with anti-muscle specific actin and anti-smooth muscle actin and are negative with anti-myogenin.

**Cellular Localization:** Cytoplasmic.

**Species:** Human, Baboon, Monkey, Cow, Pig, Sheep, Goat, Cat, Dog, Rabbit, Mouse, Rat, Guinea pig and Chicken.

Other species not tested.

**Storage:**

Store undiluted at 2-8°C.

Shelf life: one year from despatch.

**General Readings:**

1. Skalli O, Ropraz P, Trzeciak A, Benzonana G, Gillesse D, Gabbiani G. A monoclonal antibody against alpha-smooth muscle actin: a new probe for smooth muscle differentiation. J Cell Biol. 1986 Dec;103(6 Pt 2):2787-96. PubMed PMID: 3539945.

**Pictures:**

Formalin-paraffin leiomyosarcoma stained with Smooth Muscle Actin Antibody Cat.-No AM50166PU (Clone SPM332).

