

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

<b>Alternate names:</b>	ACTSA, ACTVS, Alpha-actin-2, Cell growth-inhibiting gene 46 protein
<b>Quantity:</b>	20 µg
<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. <b>Genename:</b> ACTA2
<b>Format:</b>	<b>State:</b> Liquid purified IgG fraction from Bioreactor Concentrate <b>Purification:</b> Protein A/G Chromatography <b>Buffer System:</b> 10mM PBS <b>Preservatives:</b> 0.05% Sodium Azide <b>Stabilizers:</b> 0.05% BSA
<b>Applications:</b>	<b>Flow Cytometry:</b> 0.5-1 µg/million cells. <b>Immunofluorescence:</b> 0.5-1 µg/ml. <b>Western Blotting:</b> 0.5-1 µg/ml. <b>Immunoprecipitation:</b> 0.5-1 µg/500 µg protein lysate. <b>Immunohistology (Formalin-Fixed):</b> 0.5-1.0 µg/ml for 30 minutes at RT. (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.) <b>Positive Control:</b> Blood vessels in all tissues, smooth muscle or leiomyosarcoma. 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, Benzouana 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).

