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# α-Smooth Muscle Actin (1A4) Mouse mAb (Alexa Fluor® 488 Conjugate)



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<b>Applications:</b> IF-F	<b>Reactivity:</b> H M R Hm	<b>Sensitivity:</b> Endogenous	<b>Source/Isotype:</b> Mouse IgG2a	<b>UniProt ID:</b> #P62736	<b>Entrez-Gene Id:</b> 59
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<b>Product Usage Information</b>	<b>Application</b> Immunofluorescence (Frozen)	<b>Dilution</b> 1:50 - 1:200
<b>Storage</b>	Supplied in PBS (pH 7.2), less than 0.1% sodium azide and 2 mg/ml BSA. Store at 4°C. Do not aliquot the antibody. Protect from light. Do not freeze.	
<b>Specificity / Sensitivity</b>	α-Smooth Muscle Actin (1A4) Mouse mAb (Alexa Fluor® 488 Conjugate) recognizes endogenous levels of total α-smooth muscle actin protein.	
<b>Source / Purification</b>	Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues near the amino terminus of human α-smooth muscle protein.	
<b>Product Description</b>	This Cell Signaling Technology antibody is conjugated to Alexa Fluor® 488 fluorescent dye and tested in-house for direct immuno fluorescence analysis in human cells. This antibody is expected to exhibit the same species cross-reactivity as the unconjugated α-Smooth Muscle Actin (1A4) Mouse mAb #56856.	
<b>Background</b>	Actin proteins are major components of the eukaryotic cytoskeleton. At least six vertebrate actin isoforms have been identified. The cytoplasmic β- and γ-actin proteins are referred to as "non-muscle" actin proteins as they are predominantly expressed in non-muscle cells where they control cell structure and motility (1). The α-cardiac and α-skeletal actin proteins are expressed in striated cardiac and skeletal muscles, respectively. The smooth muscle α-actin and γ-actin proteins are found primarily in vascular smooth muscle and enteric smooth muscle, respectively. The α-smooth muscle actin (ACTA2) is also known as aortic smooth muscle actin. These actin isoforms regulate the contractile potential of muscle cells (1).	
<b>Background References</b>	1. Herman, I.M. (1993) <i>Curr Opin Cell Biol</i> 5, 48-55.	

<b>Species Reactivity</b>	Species reactivity is determined by testing in at least one approved application (e.g., western blot).
<b>Applications Key</b>	<b>IF-F:</b> Immunofluorescence (Frozen)
<b>Cross-Reactivity Key</b>	<b>H:</b> human <b>M:</b> mouse <b>R:</b> rat <b>Hm:</b> hamster <b>Mk:</b> monkey <b>Vir:</b> virus <b>Mi:</b> mink <b>C:</b> chicken <b>Dm:</b> D. melanogaster <b>X:</b> Xenopus <b>Z:</b> zebrafish <b>B:</b> bovine <b>Dg:</b> dog <b>Pg:</b> pig <b>Sc:</b> S. cerevisiae <b>Ce:</b> C. elegans <b>Hr:</b> horse <b>GP:</b> Guinea Pig <b>Rab:</b> rabbit <b>All:</b> all species expected
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