

#48938 Store at -20C

 **α -Smooth Muscle Actin (1A4)
Mouse mAb (IF Formulated)****Cell Signaling**
TECHNOLOGY®**Orders:** 877-616-CELL (2355)
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For Research Use Only. Not for Use in Diagnostic Procedures.

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
WB, IP, IF-F	H M R	Endogenous	42	Mouse IgG2a	#P62736	59

Product Usage Information	Application Western Blotting Immunoprecipitation Immunofluorescence (Frozen)	Dilution 1:1000 1:200 1:100 - 1:400
Storage	Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 μ g/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at -20°C . Do not aliquot the antibody.	
Specificity / Sensitivity	α -Smooth Muscle Actin (1A4) Mouse mAb (IF Formulated) recognizes endogenous levels of total α -smooth muscle actin protein	
Source / Purification	Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues near the amino terminus of human α -smooth muscle actin protein.	
Background	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).	
Background References	1. Herman, I.M. (1993) <i>Curr Opin Cell Biol</i> 5, 48-55.	
Species Reactivity	Species reactivity is determined by testing in at least one approved application (e.g., western blot).	
Western Blot Buffer	IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.	
Applications Key	WB: Western Blotting IP: Immunoprecipitation IF-F: Immunofluorescence (Frozen)	
Cross-Reactivity Key	H: human M: mouse R: rat Hm: hamster Mk: monkey Vir: virus Mi: mink C: chicken Dm: D. melanogaster X: Xenopus Z: zebrafish B: bovine Dg: dog Pg: pig Sc: S. cerevisiae Ce: C. elegans Hr: horse GP: Guinea Pig Rab: rabbit All: all species expected	
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