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α-Smooth Muscle Actin (D4K9N) XP[®] Rabbit mAb (Alexa Fluor[®] 647 Conjugate)

For Research Use Only. Not for Use in Diagnostic Procedures.

Applications: IHC-P, IF-F	Reactivity: H M R Hm Mk	Sensitivity: Endogenous	Source/Isotype: Rabbit IgG	UniProt ID: #P62736	Entrez-Gene Id: 59
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Product Usage Information	Application Immunohistochemistry (Paraffin) Immunofluorescence (Frozen)	Dilution 1:50 - 1:200 1:50
Storage	Supplied in PBS (pH 7.2), less than 0.1% sodium azide and 2 mg/ml BSA. Store at 4°C. <i>Do not aliquot the antibody. Protect from light. Do not freeze.</i>	
Specificity/Sensitivity	α-Smooth Muscle Actin (D4K9N) XP [®] Rabbit mAb (Alexa Fluor [®] 647 Conjugate) 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.	
Description	This Cell Signaling Technology antibody is conjugated to Alexa Fluor [®] 647 fluorescent dye and tested in-house for direct immunofluorescent analysis in mouse tissue. This antibody is expected to exhibit the same species cross-reactivity as the unconjugated α-Smooth Muscle Actin (D4K9N) XP [®] Rabbit mAb #19245.	
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).	
Applications Key	IHC-P: Immunohistochemistry (Paraffin) IF-F: Immunofluorescence (Frozen)	
Cross-Reactivity Key	H: Human M: Mouse R: Rat Hm: Hamster Mk: Monkey	
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