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#34105

# α-Smooth Muscle Actin (D4K9N) XP® Rabbit mAb (Alexa Fluor® 488 Conjugate)

Cell Signaling TECHNOLOGY®

**Orders:** 877-616-CELL (2355) orders@cellsignal.com

**Support:** 877-678-TECH (8324)

**Web:** info@cellsignal.com cellsignal.com

3 Trask Lane | Danvers | Massachusetts | 01923 | USA

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

| Applications: | Reactivity: | Sensitivity: | Source/Isotype: | UniProt ID: | Entrez-Gene Id: |
|---|---|---|---|---|---|
| IHC-P, IF-F | H M R Hm Mk | Endogenous | Rabbit IgG | #P62736 | 59 |

## Product Usage Information

| Application | Dilution |
|---|---|
| Immunohistochemistry (Paraffin) | 1:50 - 1:200 |
| Immunofluorescence (Frozen) | 1:50 - 1:100 |

## Storage

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.

## Specificity/Sensitivity

α-Smooth Muscle Actin (D4K9N) XP® Rabbit mAb (Alexa Fluor® 488 Conjugate) recognizes endogenous levels of total α-smooth muscle 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® 488 fluorescent dye and tested in-house for direct immunofluorescent analysis in human cells. 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) *Curr Opin Cell Biol* 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

## Trademarks and Patents



## Limited Uses

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