

#14968 Store at -20°C

## $\alpha$ -Smooth Muscle Actin Antibody



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

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source:	UniProt ID:	Entrez-Gene Id:
WB	H M R	Endogenous	42	Rabbit	#P62736	59

### Product Usage Information

#### Application

Western Blotting

#### Dilution

1:1000

### Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100  $\mu$ g/ml BSA and 50% glycerol. Store at -20°C. Do not aliquot the antibody.

### Specificity / Sensitivity

$\alpha$ -Smooth Muscle Actin Antibody recognizes endogenous levels of total  $\alpha$ -smooth muscle actin protein.

### Source / Purification

Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues near the amino terminus of human  $\alpha$ -smooth muscle actin protein. Antibodies are purified by protein A and peptide affinity chromatography.

### Background

Actin proteins are major components of the eukaryotic cytoskeleton. At least six vertebrate actin isoforms have been identified. The cytoplasmic  $\beta$ - and  $\gamma$ -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  $\alpha$ -cardiac and  $\alpha$ -skeletal actin proteins are expressed in striated cardiac and skeletal muscles, respectively. The smooth muscle  $\alpha$ -actin and  $\gamma$ -actin proteins are found primarily in vascular smooth muscle and enteric smooth muscle, respectively. The  $\alpha$ -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).

### 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

### 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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