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#14968

α -Smooth Muscle Actin Antibody

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orders@cellsignal.comEntrez-Gene ID #59
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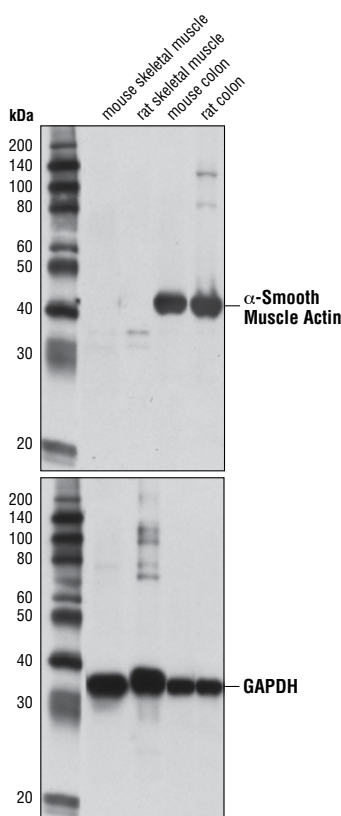
New 02/15

For Research Use Only. Not For Use In Diagnostic Procedures.**Applications**
W
Endogenous**Species Cross-Reactivity***
H, M, R**Molecular Wt.**
42 kDa**Isotype**
Rabbit**

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).

Specificity/Sensitivity: α -Smooth Muscle Actin Antibody recognizes endogenous levels of total α -smooth muscle actin protein.

Source/Purification: Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues near the carboxy terminus of human α -smooth muscle actin protein. Antibodies are purified by protein A and peptide affinity chromatography.

Background References:(1) Herman, I.M. (1993) *Curr Opin Cell Biol* 5, 48-55.

Western blot analysis of extracts from various tissue using α -Smooth Muscle Actin Antibody (upper) and GAPDH (D16H11) XP® Rabbit mAb #5174 (lower). As expected, α -skeletal muscle extracts are negative for smooth muscle actin.

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

*Species cross-reactivity is determined by western blot.

**Anti-rabbit secondary antibodies must be used to detect this antibody.

Recommended Antibody Dilutions:

Western blotting 1:1000

For product specific protocols and a complete listing of recommended companion products please see the product web page at www.cellsignal.com

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IMPORTANT: For western blots, incubate membrane with diluted antibody in 5% w/v BSA, 1X TBS, 0.1% Tween®20 at 4°C with gentle shaking, overnight.

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Applications: W—Western IP—Immunoprecipitation IHC—Immunohistochemistry ChIP—Chromatin Immunoprecipitation IF—Immunofluorescence F—Flow cytometry E-P—ELISA-Peptide Species Cross-Reactivity: H—human M—mouse R—rat Hm—hamster Mk—monkey 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 All—all species expected Species enclosed in parentheses are predicted to react based on 100% homology.