bsm-52396R **[Primary Antibody]**

alpha smooth muscle Actin Recombinant Rabbit mAb

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DATASHEET

Host: Rabbit
Isotype: IgG
Clonality: Recombinant
CloneNo.: 2B10
GeneID: 59
SWISS: P62736
Target: alpha smooth muscle Actin
Purification: affinity purified by Protein A
Concentration: 1mg/ml
Storage: 0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
Shipped at 4°C. Store at -20°C for one year. Avoid repeated freeze/thaw cycles.

Background: All eukaryotic cells express Actin, which often constitutes as much as 50% of total cellular protein. Actin filaments can form both stable and labile structures and are crucial components of microvilli and the contractile apparatus of muscle cells. While lower eukaryotes, such as yeast, have only one Actin gene, higher eukaryotes have several isoforms encoded by a family of genes. At least six types of Actin are present in mammalian tissues and fall into three classes. alpha-Actin expression is limited to various types of muscle, whereas beta- and gamma-Actin are the principle constituents of filaments in other tissues. Members of the small GTPase family regulate the organization of the Actin cytoskeleton. Rho controls the assembly of Actin stress fibers and focal adhesion. Rac regulates Actin filament accumulation at the plasma membrane. Cdc42 stimulates formation of filopodia.

Applications: **WB** (1:1000-5000)
IHC-P (1:100-500)
IHC-F (1:100-500)
IF (1:100-500)
Flow-Cyt (1ug/Test)
ICC/IF (1:100-500)

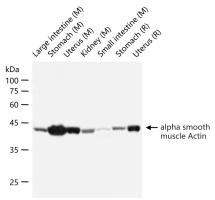
Reactivity: Human, Mouse, Rat (predicted: Zebrafish)

Predicted MW.: 42 kDa

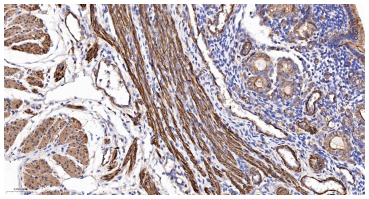
Observed MW.: 42 kDa

Subcellular Location: Cytoplasm

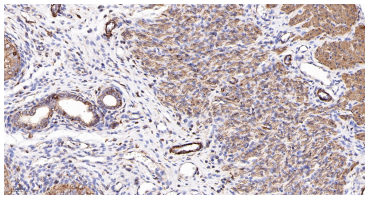
VALIDATION IMAGES



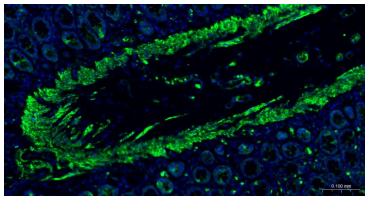
25 ug total protein per lane of various lysates (see on figure) probed with alpha smooth muscle Actin monoclonal antibody, unconjugated (bsm-52396R) at 1:2000 dilution and 4°C overnight incubation. Followed by conjugated secondary antibody incubation at r.t. for 60 min.



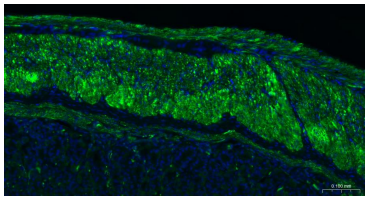
Paraformaldehyde-fixed, paraffin embedded Mouse Uterus; Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15 min; The section was incubated with alpha smooth muscle Actin Monoclonal Antibody, Unconjugated (bsm-52396R) at 1:200 overnight at 4°C, followed by conjugation to the bs-0295G-HRP and DAB (C-0010) staining.



Paraformaldehyde-fixed, paraffin embedded Rat Uterus; Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15 min; The section was incubated with alpha smooth muscle Actin Monoclonal Antibody, Unconjugated (bsm-52396R) at 1:200 overnight at 4°C, followed by conjugation to the bs-0295G-HRP and DAB (C-0010) staining.



Paraformaldehyde-fixed, paraffin embedded Human small intestine; Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15 min; Antibody incubation with alpha smooth muscle Actin Monoclonal Antibody, Unconjugated (bsm-52396R) at 1:200 overnight



Paraformaldehyde-fixed, paraffin embedded Mouse stomach; Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15 min; Antibody incubation with alpha smooth muscle Actin Monoclonal Antibody, Unconjugated (bsm-52396R) at 1:200 overnight at 4°C.

at 4°C. Followed by conjugated Goat Anti-Rabbit IgG antibody (green, bs-0295G-BF488), DAPI (blue, C02-04002) was used to stain the cell nuclei.

Followed by conjugated Goat Anti-Rabbit IgG antibody (green, bs-0295G-BF488), DAPI (blue, C02-04002) was used to stain the cell nuclei.

SELECTED CITATIONS

- **[IF=17.1]** Lu Tan. et al. Mechanically Robust Hemostatic Hydrogel Membranes with Programmable Strain-Adaptive Microdomain Entanglement for Wound Treatment in Dynamic Tissues. ACS NANO. 2024;XXXX(XXX):XXX-XXX IHC ;Rat. 38457334
- **[IF=11.8]** Huanliang Liu. et al. PM2.5 triggers autophagic degradation of Caveolin-1 via endoplasmic reticulum stress (ERS) to enhance the TGF-β1/Smad3 axis promoting pulmonary fibrosis. ENVIRON INT. 2023 Nov;181:108290 WB ;Rat. 10.1016/j.envint.2023.108290
- **[IF=11.205]** Yingchun Luo. et al. Akkermansia muciniphila prevents cold-related atrial fibrillation in rats by modulation of TMAO induced cardiac pyroptosis. EBIOMEDICINE. 2022 Aug;82:104087 WB ;Rat. 35797768
- **[IF=7.675]** Ya-Ling Yin. et al. Citronellal Attenuates Oxidative Stress–Induced Mitochondrial Damage through TRPM2/NHE1 Pathway and Effectively Inhibits Endothelial Dysfunction in Type 2 Diabetes Mellitus. ANTIOXIDANTS-BASEL. 2022 Nov;11(11):2241 IF ;Rat. 36421426
- **[IF=6.9]** Xiaoguo Suo. et al. NSUN2-mediated GATM m5C methylation regulates creatine metabolism to drive mitochondrial fission and promote renal fibrosis. CELL REP. 2026 Apr;45(4) WB,IHC ;Human,Mouse. 41999600