# Actin (muscle specific) monoclonal antibody, clone MSA/953

Catalog # MAB14633 Size 100 ug

## Applications

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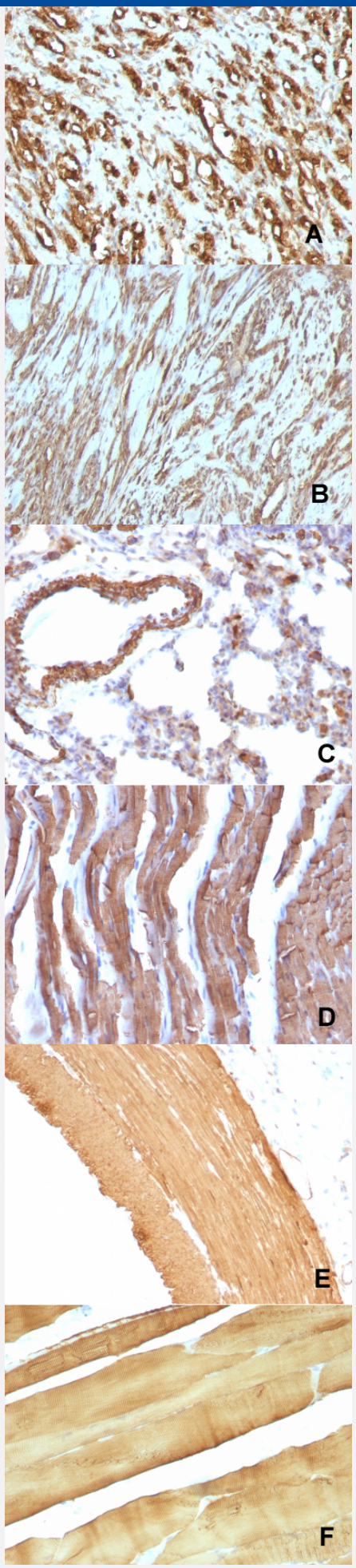


## Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections)

Immunohistochemical staining (Formalin-fixed paraffin-embedded sections) of (A) human rhabdomyosarcoma (B) human leiomyosarcoma (C) rat lung (D) rat heart (E) rat stomach and (F) rat skeletal muscle with Actin (muscle specific) monoclonal antibody, clone MSA/953 (Cat # MAB14633).

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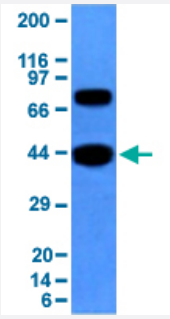


## Western Blot (Cell lysate)

Western Blot analysis of hSKM cell lysate with Actin (muscle specific) monoclonal antibody, clone MSA/953 (Cat # MAB14633).

## Specification

| | |
|---|---|
| **Product Description** | Mouse monoclonal antibody raised against synthetic peptide of human muscle actin. |
| **Immunogen** | A synthetic peptide corresponding to human muscle actins. |
| **Host** | Mouse |
| **Reactivity** | Human, Rat |
| **Specificity** | This antibody recognizes actin of skeletal, cardiac, and smooth muscle cells. It is not reactive with oth er mesenchymal cells except for myoepithelium. |
| **Form** | Liquid |
| **Purification** | Protein A/G purification |
| **Isotype** | IgG1, kappa |
| **Recommend Usage** | Flow Cytometry (0.5-1 ug/million cells in 0.1 mL)<br>Immunofluorescence (0.5-1 ug/mL)<br>Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) (0.25-0.5 ug/mL)<br>Western Blot (0.5-1 ug/mL)<br>The optimal working dilution should be determined by the end user. |
| **Storage Buffer** | In 10 mM PBS (0.05% BSA and 0.05% azide). |
| **Storage Instruction** | Store at 4°C. |
| **Note** | This product contains sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which shoul d be handled by trained staff only. |

## Applications

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- Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections)

  Immunohistochemical staining (Formalin-fixed paraffin-embedded sections) of (A) human rhabdomyosarcoma (B) human leiomyosarcoma (C) rat lung (D) rat heart (E) rat stomach and (F) rat skeletal muscle with Actin (muscle specific) monoclonal antibody, clone MSA/953 (Cat # MAB14633).

- Immunofluorescence

- Flow Cytometry

- Western Blot (Cell lysate)

  Western Blot analysis of hSKM cell lysate with Actin (muscle specific) monoclonal antibody, clone MSA/953 (Cat # MAB14633).

## Gene Info — ACTA1

| | |
|---|---|
| **Entrez GeneID** | 58 |
| **Protein Accession#** | P62736; P68032; P68133 |
| **Gene Name** | ACTA1 |
| **Gene Alias** | ACTA, ASMA, CFTD, CFTD1, CFTDM, MPFD, NEM1, NEM2, NEM3 |
| **Gene Description** | actin, alpha 1, skeletal muscle |
| **Omim ID** | 102610 161800 255310 |
| **Gene Ontology** | Hyperlink |
| **Gene Summary** | The product encoded by this gene belongs to the actin family of proteins, which are highly conserved proteins that play a role in cell motility, structure and integrity. Alpha, beta and gamma actin isoforms have been identified, with alpha actins being a major constituent of the contractile apparatus, while beta and gamma actins are involved in the regulation of cell motility. This actin is an alpha actin that is found in skeletal muscle. Mutations in this gene cause nemaline myopathy type 3, congenital myopathy with excess of thin myofilaments, congenital myopathy with cores, and congenital myopathy with fiber-type disproportion, diseases that lead to muscle fiber defects. [provided by RefSeq |
| **Other Designations** | OTTHUMP00000036123\|alpha skeletal muscle actin |

## Gene Info — ACTA2

| | |
|---|---|
| **Entrez GeneID** | 59 |
| **Protein Accession#** | P62736; P68032; P68133 |

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| | |
|---|---|
| **Gene Name** | ACTA2 |
| **Gene Alias** | AAT6, ACTSA |
| **Gene Description** | actin, alpha 2, smooth muscle, aorta |
| **Omim ID** | 102620 |
| **Gene Ontology** | Hyperlink |
| **Gene Summary** | The protein encoded by this gene belongs to the actin family of proteins, which are highly conserved proteins that play a role in cell motility, structure and integrity. Alpha, beta and gamma actin isoforms have been identified, with alpha actins being a major constituent of the contractile apparatus, while beta and gamma actins are involved in the regulation of cell motility. This actin is an alpha actin that is found in skeletal muscle. Defects in this gene cause aortic aneurysm familial thoracic type 6. Multiple alternatively spliced variants, encoding the same protein, have been identified. [provided by RefSeq |
| **Other Designations** | OTTHUMP00000020042\|alpha 2 actin\|alpha-cardiac actin\|growth-inhibiting gene 46 |

## Gene Info — ACTC1

| | |
|---|---|
| **Entrez GeneID** | 70 |
| **Protein Accession#** | P62736; P68032; P68133 |
| **Gene Name** | ACTC1 |
| **Gene Alias** | ACTC, CMD1R, CMH11 |
| **Gene Description** | actin, alpha, cardiac muscle 1 |
| **Omim ID** | 102540 192600 |
| **Gene Ontology** | Hyperlink |
| **Gene Summary** | Actins are highly conserved proteins that are involved in various types of cell motility. Polymerization of globular actin (G-actin) leads to a structural filament (F-actin) in the form of a two-stranded helix. Each actin can bind to four others. The protein encoded by this gene belongs to the actin family which is comprised of three main groups of actin isoforms, alpha, beta, and gamma. The alpha actins are found in muscle tissues and are a major constituent of the contractile apparatus. Defects in this gene have been associated with idiopathic dilated cardiomyopathy (IDC) and familial hypertrophic cardiomyopathy (FHC). [provided by RefSeq |
| **Other Designations** | cardiac muscle alpha actin 1 |

## Publication Reference

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- Actin cytoskeleton. Setting the pace of cell movement.

  Barkalow K, Hartwig JH.

  Current Biology 1995 Sep; 5(9):1000.

  Application: IF, IHC, WB-Ce, WB-Ti, WB-Tr, Human, Mouse, Mammalian cells, Tissues

## Pathway

- Cardiac muscle contraction
- Hypertrophic cardiomyopathy (HCM)
- Vascular smooth muscle contraction

## Disease

- Acute Disease
- Alzheimer disease
- Alzheimer Disease
- Atherosclerosis
- Calcinosis
- Cardiomegaly
- Cardiomyopathies
- Cardiomyopathy
- Cardiovascular Diseases
- Cardiovascular Diseases
- Coronary Artery Disease
- Diabetes Mellitus
- Diabetes Mellitus
- Diabetes Mellitus
- Edema

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- Edema
- Genetic Predisposition to Disease
- Genetic Predisposition to Disease
- Myocardial Infarction
- Myopia
- Parkinson disease

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