# α-Actin-1 (ACTA1) Rabbit mAb

Catalog No.: A2319 Recombinant 17 Publications



## **Basic Information**

**Observed MW** 42kDa

**Calculated MW** 42kDa

Category Primary antibody

Applications WB, IF/ICC, ELISA

**Cross-Reactivity** Human, Mouse, Rat

**CloneNo number** ARC1913

# Background

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 a variety of myopathies, including nemaline myopathy, 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 with manifestations such as hypotonia.

### **Recommended Dilutions**

WB	1:1000 - 1:6000
IF/ICC	1:200 - 1:800
ELISA	Recommended starting concentration is 1 µg/mL. Please optimize the concentration based on your specific assay requirements.

# Immunogen Information

Gene ID 58

**Swiss Prot** P68133

#### Immunogen

Synthetic peptide. This information is considered to be commercially sensitive.

#### Synonyms

ACTA; ASMA; CFTD; MPFD; NEM1; NEM2; NEM3; SHPM; CFTD1; CFTDM; CMYP2A; CMYP2B; CMYP2C; α-Actin-1 (ACTA1)

### Contact

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# **Product Information**

Source Rabbit

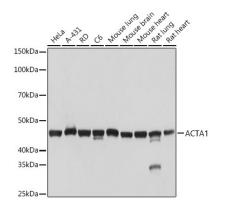
Isotype lgG

Purification Affinity purification

#### Storage

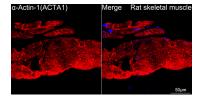
Store at -20°C. Avoid freeze / thaw cycles. Buffer: PBS with 0.02% sodium azide, 0.05% BSA, 50% glycerol, pH7.3.

### Validation Data

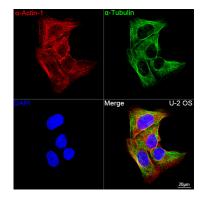


Western blot analysis of various lysates using  $\alpha$ -Actin-1 (ACTA1) Rabbit mAb (A2319) at 1:1000 dilution. Secondary antibody: HRP-conjugated Goat anti-Rabbit IgG (H+L) (AS014) at 1:10000 dilution. Lysates/proteins: 25µg per lane. Blocking buffer: 3% nonfat dry milk in TBST. Detection: ECL Basic Kit (RM00020). Exposure time: 1s.

Actin-1(ACTA1



Confocal imaging of paraffin-embedded Mouse skeletal muscle tissue using  $\alpha$ -Actin-1 (ACTA1) Rabbit mAb (A2319, dilution 1:200) followed by a further incubation with Cy3 Goat Anti-Rabbit IgG (H+L) (AS007, dilution 1:500) (Red). DAPI was used for nuclear staining (Blue). Objective: 40x. Perform high pressure antigen retrieval with 0.01 M citrate buffer (pH 6.0) prior to IF staining. Confocal imaging of paraffin-embedded Rat skeletal muscle tissue using  $\alpha$ -Actin-1 (ACTA1) Rabbit mAb (A2319, dilution 1:200) followed by a further incubation with Cy3 Goat Anti-Rabbit IgG (H+L) (AS007, dilution 1:500)(Red). DAPI was used for nuclear staining (Blue). Objective: 40x. Perform high pressure antigen retrieval with 0.01 M citrate buffer (pH 6.0) prior to IF staining.



Confocal imaging of U-2 OS cells using  $\alpha$ -Actin-1 (ACTA1) Rabbit mAb (A2319, dilution 1:200) followed by a further incubation with Cy3 Goat Anti-Rabbit IgG (H+L) (AS007, dilution 1:500) (Red). The cells were counterstained with  $\alpha$ -Tubulin Mouse mAb (AC012, dilution 1:400) followed by incubation with ABflo® 488-conjugated Goat Anti-Mouse IgG (H+L) Ab (AS076, dilution 1:500) (Green). DAPI was used for nuclear staining (Blue). Objective: 100x.