

# Actin (C-terminal region)

Cat. # AM2021

Host Mouse Monoclonal IgG2a

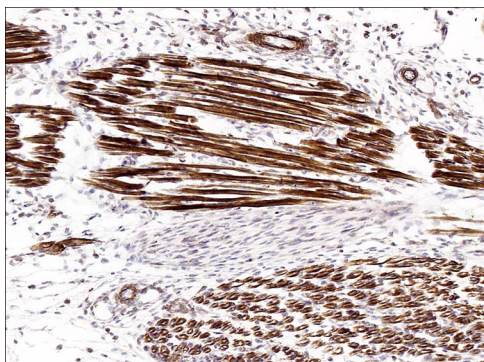
Size 100  $\mu$ l

## Background:

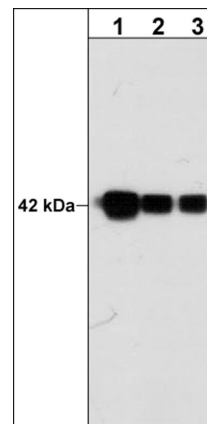
Actin is a major cytoskeletal protein involved in diverse cellular functions including cell motility, adhesion, and morphology. Six different actin isoforms have been identified in vertebrates. There are four  $\alpha$  isoforms: skeletal, cardiac, and two smooth muscle (enteric and aortic) actins, along with two cytoplasmic actins ( $\beta$  and  $\gamma$ ). Actin exists in two principal forms, globular, monomeric (G) actin, and filamentous polymeric (F) actin. The assembly and disassembly of actin filaments, and also their organization into functional networks, is regulated by a variety of actin-binding proteins (ABPs). Phosphorylation may also be important for regulating actin assembly and interaction with ABPs. In *Dictyostelium*, phosphorylation of Tyr-53 occurs in response to cell stress and this phosphorylation may alter actin polymerization. In B cells, SHP-1 tyrosine dephosphorylation of actin leads to actin filament depolymerization following BCR stimulation.

## References

- Baba, T. et al. (2003) J. Immunol. 170: 3762.  
Jungbluth, A. et al. (1995) FEBS Let. 375:87.  
Winder, S.J. et al. (2005) J. Cell Sci. 118:651.  
Liu, X. et al. (2006) Proc Nat Acad Sci U S A. 103(37):13694



Formalin fixed, citric acid treated paraffin sections of E18 mouse skeletal muscle. Sections were probed with anti-Actin (AM2021) then anti-Mouse:HRP before detection using DAB. (Images provided by Carl Hobbs and Dr. Pat Doherty at Wolfson Centre for Age-Related Diseases, King's College London).



Western blot analysis of mouse C2C12 cells probed with mouse monoclonal anti-Actin (C-terminal region) antibody at 1:1000 (lane 1), 1:2000 (lane 2), or 1:4000 (lane 3).

FOR RESEARCH USE ONLY. NOT FOR DIAGNOSTIC OR THERAPEUTIC USE.

web: [www.ecmbiosciences.com](http://www.ecmbiosciences.com)

telephone: 859-879-2075

email: [info@ecmbiosciences.com](mailto:info@ecmbiosciences.com)

toll-free: 1-800-859-8202

**ECM**Biosciences

# Actin (C-terminal region)

**Cat. #** AM2021

**Host** Mouse Monoclonal IgG2a

**Size** 100  $\mu$ l

## **Immunogen:**

Clone (M202) was generated from a sequence corresponding to amino acids in the C-terminal region of human  $\beta$ -actin. This human actin sequence is highly conserved in most eukaryotic actin isoforms.

## **Buffer and Storage:**

Mouse monoclonal, protein G purified antibody is supplied in 100 $\mu$ l phosphate-buffered saline, 50% glycerol, 1 mg/ml BSA, and 0.05% sodium azide. Store at -20°C. Do not aliquot. Stable for 1 year.

## **Applications:**

WB 1:1000 IHC 1:100

ELISA 1:2000

ICC 1:100

End user should determine optimal dilution for their particular applications and experiments.  
Western blot membranes were incubated with diluted antibody in 5% non-fat milk, PBS, 0.04% Tween20 for 1hour at room temperature.

## **Specificity:**

This antibody detects a 42 kDa\* protein corresponding to the molecular mass of Actin on SDS-PAGE immunoblots of human A431, SYF, and HUVEC cells, as well as mouse C2C12 cells.

\*All molecular weights (MW) are confirmed by comparison to Bio-Rad Rainbow Markers and to western blot mobilities of known proteins with similar MW.

## **Related Products:**

AP1651 Actin (N-terminal Region) Rabbit Polyclonal  
AP1671 Actin (Tyr-53), phospho-specific Rabbit Polyclonal  
TM1541  $\beta$ -Tubulin Mouse Monoclonal  
TP1691  $\beta$ III-Tubulin (C-terminus) Rabbit Polyclonal

FOR RESEARCH USE ONLY. NOT FOR DIAGNOSTIC OR THERAPEUTIC USE.

web: [www.ecmbiosciences.com](http://www.ecmbiosciences.com)

email: [info@ecmbiosciences.com](mailto:info@ecmbiosciences.com)

telephone: 859-879-2075

toll-free: 1-800-859-8202

**ECMBiosciences**