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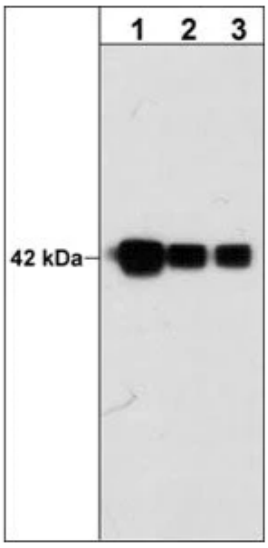
Product Datasheet

Anti-Actin (C-terminal region) Antibody

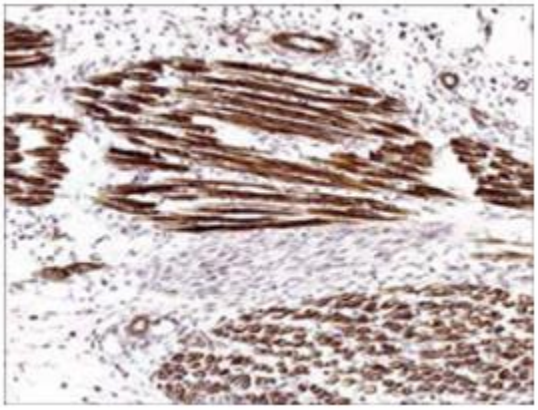
Overview

Catalog #	AM2021
Size	100 µL
Host Species	Mouse Monoclonal
Format	Protein G Purified
Applications	WB 1:1000 IHC 1:50 ICC 1:50
Species Tested	Chicken, Human, Mouse, and Rat
Immunogen	Clone (M202) was generated from a sequence corresponding to amino acids in the C-terminal region of human β-actin*. This human actin sequence is highly conserved in most eukaryotic actin isoforms.
Molecular Weight	42 kDa
Cite this Antibody	PhosphoSolutions Cat# AM2021, RRID:AB_2223218

Images



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).



Formalin fixed, citric acid treated parafin 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).

Details

Target Description	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 α isoforms: skeletal, cardiac, and two smooth muscle (enteric and aortic) actins, along with two cytoplasmic actins (β and γ). 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
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.
Quality Control	Western blots performed on each lot.
Buffer	PBS + 1 mg/ml BSA, 0.05% NaN3 and 50% glycerol
Storage	Storage at -20°C is recommended, as aliquots may be taken without freeze/thawing due to presence of 50% glycerol. Stable for at least 1 year at -20°C.
Stability	After date of receipt, stable for at least 1 year at -20°C.

Significant Citations

Barnes, J., Salas, F., Mokhtari, R., Dolstra, H., Pedrosa, E. and Lachman, H.M. (2018). Modeling the neuropsychiatric manifestations of Lowe syndrome using induced pluripotent stem cells: defective F-actin polymerization and WAVE-1 expression in neuronal cells. *Molecular Autism*, 9(1).

Pritchard, A.J., Mir, A.K. and Dev, K.K. (2014). Fingolimod Attenuates Splenocyte-Induced Demyelination in Cerebellar Slice Cultures. *PLoS ONE*, 9(6), p.e99444.

Dutta, P., O'Connell, K.E., S. Banu Ozkan, Sailer, A.W. and Dev, K.K. (2014). The protein interacting with C-kinase (PICK1) interacts with and attenuates parkin-associated endothelial-like (PAEL) receptor-mediated cell death. *Journal of Neurochemistry*.

Muirhead, G. and Dev, K.K. (2014). The expression of neuronal sorting nexin 8 (SNX8) exacerbates abnormal cholesterol levels. *Journal of molecular neuroscience: MN*, [online] 53(1), pp.125–134.

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