**Beta-Actin Antibody**  
**Mouse Monoclonal Antibody (Mab)**  
**Catalog # AM1829B**

### Specification

#### Beta-Actin Antibody - Product Information

<table>
<thead>
<tr>
<th>Application</th>
<th>IHC-P, FC, WB, IF, E</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary Accession</td>
<td>P60709, A2BDB0, P63259, P63260, P63261, Q5ZMQ2, P63258, P60711, Q6OAQ1, P60710, Q4R561, P60706, P60712, P53505, P60708, P60713</td>
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<td>Other Accession</td>
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<td>Reactivity</td>
<td>Human, Mouse, Rat</td>
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<td>Predicted</td>
<td>Xenopus, Bovine, Chicken, Horse, Monkey, Pig, Sheep</td>
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<td>Host</td>
<td>Mouse</td>
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<td>Clonality</td>
<td>Monoclonal</td>
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<tr>
<td>Isotype</td>
<td>IgG1, Igk</td>
</tr>
<tr>
<td>Clone Names</td>
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</tbody>
</table>

#### Beta-Actin Antibody - Additional Information

**Gene ID** 60  

**Other Names**  
Actin, cytoplasmic 1, Beta-actin, Actin, cytoplasmic 1, N-terminally processed, ACTB  

**Target/Specificity**  
This ACTB Monoclonal antibody is generated from mouse immunized with ACTB recombinant protein.

**Dilution**  
IHC-P: 1:25  
FC: 1:25  
WB: 1:1000  
IF: 1:10–50

**Format**  
Purified monoclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein G column, followed by dialysis against PBS.

**Storage**  
Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

**Precautions**  
AM1829b staining ACTB in human heart tissue sections by Immunohistochemistry (IHC-P - paraformaldehyde-fixed, paraffin-embedded sections). Tissue was fixed with formaldehyde and blocked with 3% BSA for 0.5 hour at room temperature; antigen retrieval was by heat mediation with a citrate buffer (pH6). Samples were incubated with primary antibody (1/25) for 1 hours at 37°C. A undiluted biotinylated goat polyclonal antibody was used as the secondary antibody.

Overlay histogram showing A431 cells stained with AM1829b(green line). The cells were fixed with 2% paraformaldehyde (10 min) and then permeabilized with 90% methanol for 10 min. The cells were then incubated in 2% bovine serum albumin to block non-specific protein-protein interactions followed by the
Beta-Actin Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

**Beta-Actin Antibody - Protein Information**

**Name** ACTB

**Function**
Actins are highly conserved proteins that are involved in various types of cell motility and are ubiquitously expressed in all eukaryotic cells.

**Cellular Location**
Cytoplasm, cytoskeleton. Note=Localized in cytoplasmic mRNP granules containing untranslated mRNAs

**Beta-Actin Antibody - Protocols**

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytometry
- Cell Culture

All lanes : Anti-ACTB Antibody at 1:1000 dilution Lane 1: Hela whole cell lysate Lane 2: HepG2 whole cell lysate Lane 3: NIH-3T3 whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-mouse IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 42 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

Immunohistochemical analysis of paraffin-embedded H.skeletal muscle section using Beta-Actin Antibody(Cat#AM1829b). AM1829b was diluted at 1:25 dilution. A peroxidase-conjugated goat anti-mouse IgG at 1:400 dilution was used as the secondary antibody, followed by DAB staining.

Immunohistochemical analysis of paraffin-embedded H.spleen section using Beta-Actin Antibody(Cat#AM1829b). AM1829b was diluted at 1:25 dilution. A peroxidase-conjugated goat anti-rabbit IgG at 1:400 dilution was used as the secondary antibody, followed by DAB staining.
Confocal immunofluorescent analysis of ACTB Antibody (Cat#AM1829b) with Hela cell followed by Alexa Fluor® 488-conjugated goat anti-mouse IgG (green). DAPI was used to stain the cell nuclear (blue).

Western blot analysis of anti-ACTB Antibody (Cat. #AM1829b) in K562, HL-60, Hela cell line, mouse spleen, mouse liver tissue lysates, mouse NIH-3T3 cell line lysate and mouse cerebellum, mouse brain tissue lysates (35µg/lane). ACTB (arrow) was detected using the purified Mab.

**Beta-Actin Antibody - Background**

This gene encodes one of six different actin proteins. Actins are highly conserved proteins that are involved in cell motility, structure, and integrity. This actin is a major constituent of the contractile apparatus and one of the two nonmuscle cytoskeletal actins.

**Beta-Actin Antibody - References**

Sex-specific proteome differences in the anterior cingulate cortex of schizophrenia.

**Beta-Actin Antibody - Citations**

- **Huaier suppresses proliferative and metastatic potential of prostate cancer PC3 cells via downregulation of Lamin B1 and induction of autophagy.**
- **CD133 Promotes Adhesion to the Ovarian Cancer Metastatic Niche.**
- **Stk33 is required for spermatid differentiation and male fertility in mice.**
- **Induction of miR-155 after Brain Injury Promotes Type 1 Interferon and has a Neuroprotective Effect.**
- **Isoprenylcysteine carboxylmethyltransferase is critical for malignant transformation and tumor maintenance by all RAS isoforms.**
- **Berberine-induced Inactivation of Signal Transducer and Activator of Transcription 5 Signaling Promotes Male-specific Expression of a Bile-acid Uptake Transporter.**
- **Activation of GR but not PXR by Dexamethasone Attenuated Acetaminophen Hepatotoxicities via Fgf21 Induction.**
- **Localized inhibition of P2X7R at the spinal cord injury site improves neurogenic bladder dysfunction by decreasing urothelial P2X3R expression in rats.**
- **Reduced Glutamate Release in Adult BTBR Mouse Model of Autism Spectrum Disorder.**
- **CYLD Promotes TNF-α-Induced Cell Necrosis Mediated by RIP-1 in Human Lung Cancer Cells.**
- **Abnormal Accumulation of Desmin in Gastrocnemius Myofibers of Patients with Peripheral Artery Disease: Associations with Altered Myofiber Morphology and Density, Mitochondrial Dysfunction and Impaired Limb Function.**
- **Androgen receptor silences thioredoxin-interacting protein and competitively inhibits glucocorticoid receptor-mediated apoptosis in pancreatic â-cells.**
- **Functional analyses of the three simian hemorrhagic Fever virus nonstructural protein 1 papain-like proteases.**
- **Addiction to multiple oncogenes can be exploited to prevent the emergence of therapeutic resistance.**
- **Evidence for a novel antioxidant function and isoform-specific regulation of the human p66Shc gene.**