

Beta-actin Antibody

Purified Mouse Monoclonal Antibody (Mab)

Catalog # AM1021B

Product Information

Application	WB, IHC-P, E
Primary Accession	P60709
Reactivity	Human, Mouse, Rat
Host	Mouse
Clonality	Monoclonal
Isotype	IgG
Clone Names	8H10D10
Calculated MW	41737
Antigen Region	Unknown

Additional Information

Gene ID	60
Other Names	Actin, cytoplasmic 1, Beta-actin, Actin, cytoplasmic 1, N-terminally processed, ACTB
Target/Specificity	ACTB recombinant protein is used to produce this monoclonal antibody.
Dilution	WB~~1:2000~10000 IHC-P~~1:100~500 E~~Use at an assay dependent concentration.
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	Beta-actin Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	ACTB
Function	Actin is a highly conserved protein that polymerizes to produce filaments that form cross-linked networks in the cytoplasm of cells (PubMed: 25255767 , PubMed: 29581253). Actin exists in both monomeric (G-actin) and polymeric (F-actin) forms, both forms playing key functions, such as cell motility and contraction (PubMed: 29581253). In addition to their role in the cytoplasmic

cytoskeleton, G- and F- actin also localize in the nucleus, and regulate gene transcription and motility and repair of damaged DNA (PubMed:[29925947](#)). Plays a role in the assembly of the gamma-tubulin ring complex (gTuRC), which regulates the minus-end nucleation of alpha-beta tubulin heterodimers that grow into microtubule protofilaments (PubMed:[39321809](#), PubMed:[38609661](#)). Part of the ACTR1A/ACTB filament around which the dynein complex is built (By similarity). The dynein multiprotein complex activates the molecular motor dynein for ultra-processive transport along microtubules (By similarity).

Cellular Location

Cytoplasm, cytoskeleton. Nucleus Note=Localized in cytoplasmic mRNP granules containing untranslated mRNAs.

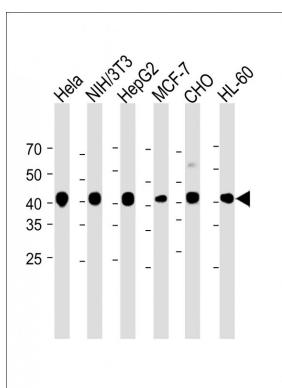
Background

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.

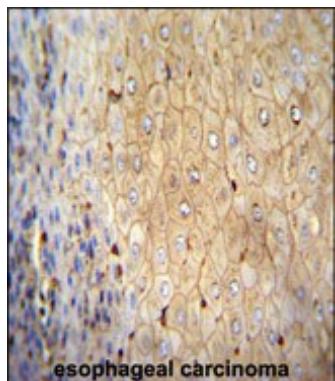
References

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Images



All lanes: Anti-Beta-actin Antibody at 1:1000 dilution Lane 1: Hela whole cell lysate Lane 2: NIH/3T3 whole cell lysate Lane 3: HepG2 whole cell lysate Lane 4: MCF-7 whole cell lysate Lane 5: CHO whole cell lysate Lane 6: HL-60 whole cell lysates/proteins at 20 µg per lane. Secondary: Goat Anti-Mouse IgG, (H+L), Peroxidase conjugated (ASP1613) at 1/8000 dilution. Observed band size: 42 KDa Blocking/Dilution buffer: 5% NFDM/TBST.



Immunohistochemical analysis of paraffin-embedded H. spleen section using Beta-actin Antibody(Cat#AM1021b). AM1021b 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.

Citations

- [Varicella zoster virus glycoprotein E facilitates PINK1/Parkin-mediated mitophagy to evade STING and MAVS-mediated antiviral innate immunity](#)
- [SARS-CoV-2 main protease cleaves MAGED2 to antagonize host antiviral defense](#)
- [Alamandine/MrgD axis prevents TGF- \$\beta\$ 1-mediated fibroblast activation via regulation of aerobic glycolysis and mitophagy](#)
- [A comprehensive analysis of the circRNA-miRNA-mRNA network in osteocyte-like cell associated with *Mycobacterium leprae* infection](#)
- [Seasonal expressions of GPR41 and GPR43 in the colon of the wild ground squirrels \(\)](#)
- [An organoid-based screen for epigenetic inhibitors that stimulate antigen presentation and potentiate T-cell-mediated cytotoxicity](#)
- [Mir-279-3p regulates deltamethrin resistance through CYP325BB1 in *Culex pipiens pallens*](#)
- [Extracellular NLRP3 inflammasome particles are internalized by human coronary artery smooth muscle cells and induce pro-atherogenic effects](#)
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- [Mir-4448 is involved in deltamethrin resistance by targeting CYP4H31 in *Culex pipiens pallens*](#)
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- [UCH-L3 promotes non-small cell lung cancer proliferation via accelerating cell cycle and inhibiting cell apoptosis](#)
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- [Berberine derivatives with a long alkyl chain branched by hydroxyl group and methoxycarbonyl group at 9-position show improved anti-proliferation activity and membrane permeability in A549 cells](#)
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- [Soluble CD146, a cerebrospinal fluid marker for neuroinflammation, promotes blood-brain barrier dysfunction](#)
- [Gambogic acid exhibits anti-metastatic activity on malignant melanoma mainly through inhibition of PI3K/Akt and ERK signaling pathways](#)
- [Tau interactome analyses in CRISPR-Cas9 engineered neuronal cells reveal ATPase-dependent binding of wild-type but](#)

[not P301L Tau to non-muscle myosins](#)

- [CD146-HIF-1 \$\alpha\$ hypoxic reprogramming drives vascular remodeling and pulmonary arterial hypertension.](#)
- [Seasonal expressions of androgen receptor, estrogen receptors, 5 \$\alpha\$ -reductases and P450arom in the epididymis of the male muskrat \(*Ondatra zibethicus*\).](#)
- [Berberine promotes the recruitment and activation of brown adipose tissue in mice and humans.](#)
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- [Effects of BENC-511, a novel PI3K inhibitor, on the proliferation and apoptosis of A549 human lung adenocarcinoma cells.](#)
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- [Inhibition of P-glycoprotein mediated efflux in Caco-2 cells by phytic acid.](#)
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- [Metformin Alleviates Aging Cellular Phenotypes in Hutchinson-Gilford Progeria Syndrome Dermal Fibroblasts.](#)
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- [Reg3g Promotes Pancreatic Carcinogenesis in a Murine Model of Chronic Pancreatitis.](#)
- [IGFBP7 promotes hemocyte proliferation in small abalone *Haliotis diversicolor*, proved by dsRNA and cap mRNA exposure.](#)
- [Interference with HMGB1 increases the sensitivity to chemotherapy drugs by inhibiting HMGB1-mediated cell autophagy and inducing cell apoptosis.](#)
- [KDM6B induces epithelial-mesenchymal transition and enhances clear cell renal cell carcinoma metastasis through the activation of SLUG.](#)
- [Autophagy activation attenuates renal ischemia-reperfusion injury in rats.](#)
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