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Anti-β-Actin Antibody

Mouse Anti Human Monoclonal Antibody
Catalog # AP53385

Product Information

Primary Accession	P60709
Other Accession	NM_001101
Host	Mouse
Clonality	Monoclonal
Isotype	IgG2b
Immunogen	Purified recombinant human beta actin protein fragments expressed in E.coli.
Purification	Affinity purified
Calculated MW	41737

Additional Information

Gene ID	60
Other Names	A X actin like protein;ACTB;ACTB_HUMAN;Actin;Actin cytoplasmic 1;Actx;b actin;b-actin;Beta cytoskeletal actin;Beta-actin;cytoplasmic 1;Melanoma X actin;N-terminally processed;PS1TP5 binding protein 1;PS1TP5BP1.
Format	Purified mouse monoclonal antibody in PB(pH 7.4) containing with 0.09% (W/V) sodium azide,0.1mg/mlBSA and 50% glycerol.
Storage	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.

Protein Information

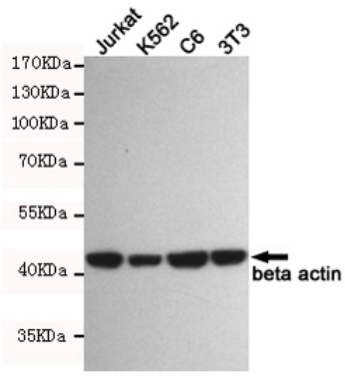
Name	ACTB
Function	Actin is a highly conserved protein that polymerizes to produce filaments that form cross-linked networks in the cytoplasm of cells (PubMed:25255767, PubMed:29581253). Actin exists in both monomeric (G-actin) and polymeric (F-actin) forms, both forms playing key functions, such as 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 protafilaments (PubMed:39321809, PubMed:38609661). Part of the ACTR1A/ACTB filament around which the dynactin complex is built (By similarity). The dynactin 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

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

Images



Western blot detection of beta actin in Jurkat,K562,C6,3T3 and Hela cell lysates using beta actin mouse mAb (1:1000 diluted).Predicted band size:45KDa.Observed band size:45KDa.

Citations

- The Suppression of miR-199a-3p by Promoter Methylation Contributes to Papillary Thyroid Carcinoma Aggressiveness by Targeting RAP2a and DNMT3a
- Anterior gradient 2 is induced in cutaneous wound and promotes wound healing through its adhesion domain.
- Regulation of 25-hydroxyvitamin D-1-hydroxylase and 24-hydroxylase in keratinocytes by PTH and FGF23.
- Nigericin exerts anticancer effects on human colorectal cancer cells by inhibiting Wnt/β-catenin signaling pathway.
- Tumor suppressive role of miR-1224-5p in keloid proliferation, apoptosis and invasion via the TGF-β1/Smad3 signaling pathway.

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