

Anti-β-Actin Antibody

Mouse Anti Human Monoclonal Antibody Catalog # AP53385

Specification

Anti-β-Actin Antibody - Product Information

Application Primary Accession Other Accession Reactivity Host Clonality Isotype Immunogen

Purification Calculated MW WB <u>P60709</u> <u>NM_001101</u> Human, Mouse, Rat Mouse Monoclonal IgG2b Purified recombinant human beta actin protein fragments expressed in E.coli. Affinity purified 45 KDa

Anti-β-Actin Antibody - 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.

Dilution WB~~1:1000

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 -20 °C.Stable for 12 months from date of receipt

Anti-β-Actin Antibody - 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.

Anti-β-Actin Antibody - Protocols

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

- <u>Western Blot</u>
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- <u>Cell Culture</u>

Anti-β-Actin Antibody - 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.

Anti-β-Actin Antibody - Background

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



Anti-β-Actin Antibody - Citations

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