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beta Actin Antibody

Purified Mouse Monoclonal Antibody (Mab)
Catalog # AP53271

Product Information

Application	WB
Primary Accession	P60709
Reactivity	Rat, Pig, Human, Mouse, Rabbit, Zebrafish, Hamster, Monkey, Chicken, Goat, Drosophila, Fish
Host	Mouse
Clonality	Monoclonal
Isotype	IgG2b
Conjugate	Unconjugated
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.
Dilution	WB~~1:10000
Format	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide, pH 7.3.
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.

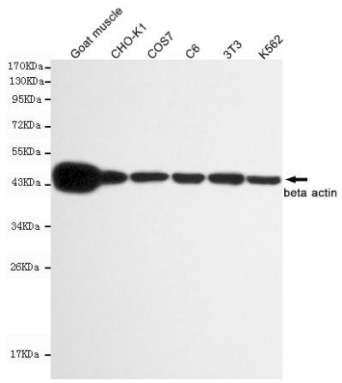
Background

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

References

Ponte P.,et al.Nucleic Acids Res. 12:1687-1696(1984).
Nakajima-Iijima S.,et al.Proc. Natl. Acad. Sci. U.S.A. 82:6133-6137(1985).
Ohmori H.,et al.J. Cell Biol. 116:933-941(1992).
Hillier L.W.,et al.Nature 424:157-164(2003).
Gevaert K.,et al.Nat. Biotechnol. 21:566-569(2003).

Images



Western blot detection of beta actin in C6,3T3,COS7,CHO-k1,K562 and Goat muscle cell lysates using beta actin mouse mAb (1:10000 diluted).Predicted band size:45KDa.Observed band size:45KDa.

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