

# beta Actin Antibody

Purified Mouse Monoclonal Antibody (Mab)

Catalog # AP53270

## Product Information

Application	WB
Primary Accession	<a href="#">P60709</a>
Reactivity	Human, Mouse, Neisseria Gonorrhoeae
Host	Mouse
Clonality	Monoclonal
Isotype	IgG3
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~~1:1500
Format	Purified mouse monoclonal in PB(pH 7.4) containing with 0.09% (W/V) sodium azide,50% glycerol and 1mg/ml BSA.
Storage	Store at -20 °C.Stable for 12 months from date of receipt

## 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: <a href="#">25255767</a> , PubMed: <a href="#">29581253</a> ). Actin exists in both monomeric (G-actin) and polymeric (F-actin) forms, both forms playing key functions, such as cell motility and contraction (PubMed: <a href="#">29581253</a> ). 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: <a href="#">29925947</a> ). 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: <a href="#">39321809</a> , PubMed: <a href="#">38609661</a> ). 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.

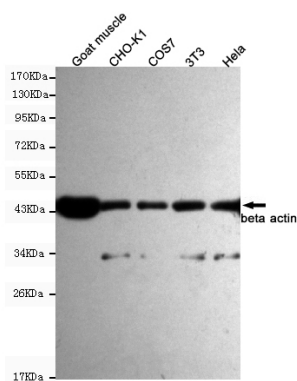
## Background

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 HeLa,3T3,COS7,CHO-k1 and Goat muscle cell lysates using beta actin mouse mAb (1:1500 diluted).Predicted band size:45KDa.Observed band size:45KDa.

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