

# Anti-beta-Actin (Loading Control) antibody

Purified Rabbit Polyclonal Antibody (Pab)

Catalog # AP50879

## Product Information

Application	WB, ICC, E
Primary Accession	<a href="#">P60709</a>
Reactivity	Rat, Pig, Bovine, Cat, Dog
Host	Rabbit
Clonality	Polyclonal
Calculated MW	41737

## Additional Information

Gene ID	60
Other Names	Actin, cytoplasmic 1, Beta-actin, Actin, cytoplasmic 1, N-terminally processed, ACTB
Dilution	WB=1:5000-50000, ICC=1:100, Flow-Cyt=1 µg/Test, ELISA=1:5000-20000
Format	0.01M TBS(pH7.4) with 1% BSA, 0.09% (W/V) sodium azide and 50% Glyce
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

## 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 (γTuRC), 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

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

## References

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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

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12%Gel  
Rat lung

beta-actin  
(42kD)

Rat lung lysate 30ug, probed AP50879 at 1:200 overnight in 4 °C. Followed by conjugation to the secondary antibody at 1:3000 90min in 37 °C. Predicted and observed band size: 42kDa.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.