

ACTB / Beta Actin Antibody (clone 4C2)
Mouse Monoclonal Antibody
Catalog # ALS14862**Specification**

ACTB / Beta Actin Antibody (clone 4C2) - Product Information

Application	WB, IHC-P, E, IHC-F, FC
Primary Accession	P60709
Reactivity	Human, Mouse, Rat, Rabbit, Pig, Chicken
Host	Mouse
Clonality	Monoclonal
Calculated MW	42kDa KDa
Dilution	WB~~1:1000 IHC-P~~N/A E~~N/A IHC-F~~N/A FC~~1:10~50

ACTB / Beta Actin Antibody (clone 4C2) - Additional Information**Gene ID** 60**Other Names**

Actin, cytoplasmic 1, Beta-actin, Actin, cytoplasmic 1, N-terminally processed, ACTB

Target/Specificity

The epitope is highly conserved and is therefore expected to react with many other species. The antibody does not cross react with other actin isoforms.

Reconstitution & Storage

+4°C, avoid freezing

Precautions

ACTB / Beta Actin Antibody (clone 4C2) is for research use only and not for use in diagnostic or therapeutic procedures.

ACTB / Beta Actin Antibody (clone 4C2) - 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](http://www.uniprot.org/citations/25255767), PubMed: [29581253](http://www.uniprot.org/citations/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](http://www.uniprot.org/citations/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 protofilaments (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

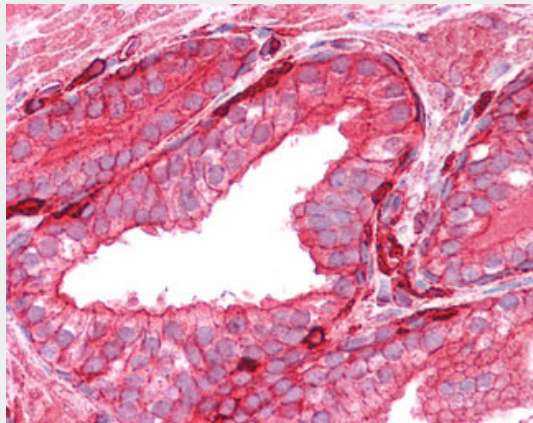
Cytoplasm, cytoskeleton. Nucleus Note=Localized in cytoplasmic mRNP granules containing untranslated mRNAs.

ACTB / Beta Actin Antibody (clone 4C2) - Protocols

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

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

ACTB / Beta Actin Antibody (clone 4C2) - Images



Anti-Beta Actin antibody IHC of human prostate.

ACTB / Beta Actin Antibody (clone 4C2) - Background

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

ACTB / Beta Actin Antibody (clone 4C2) - 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).