

**Beta-Actin Antibody**  
**Rabbit Polyclonal Antibody**  
**Catalog # ABV10499**

**Specification**

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**Beta-Actin Antibody - Product Information**

Application	WB
Primary Accession	<a href="#">P60709</a>
Reactivity	Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	41737

**Beta-Actin Antibody - Additional Information**

**Gene ID 60**

**Application & Usage**

**Western blotting (0.5-2 µg/ml). However, the optimal concentrations should be determined individually. The antibody recognizes 45 kDa beta-Actin in samples from human and mouse origins. Reactivity to other species has not been tested.**

**Other Names**

PS1TP5BP1 , ACTB, Beta-actin , b-actin

**Target/Specificity**

Beta-Actin

**Antibody Form**

Liquid

**Appearance**

Colorless liquid

**Formulation**

100 µg (0.2mg/ml) protein A purified rabbit anti-β-Actin polyclonal antibody in phosphate-buffered saline (PBS) containing 0.5 % BSA, 30% glycerol, and 0.01% thimerosal.

**Handling**

The antibody solution should be gently mixed before use.

**Reconstitution & Storage**

-20 °C

**Background Descriptions**

**Precautions**

Beta-Actin Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

## Beta-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](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](http://www.uniprot.org/citations/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](http://www.uniprot.org/citations/39321809)), PubMed: [38609661](http://www.uniprot.org/citations/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.

## Beta-Actin Antibody - 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](#)

## Beta-Actin Antibody - Images

### Beta-Actin Antibody - Background

Actin is expressed in all eukaryotic cells and is the major component of the cytoskeleton. At least six types of actin are present in mammalian tissues and fall into three classes. Alpha actin expression is limited to various types of muscle and it regulates contractile potentials for the muscle cells, whereas beta and gamma actin, also known as cytoplasmic actin, are predominantly expressed in nonmuscle cells, controlling cell structure and motility.