

**Anti-Beta-Actin Antibody (Monoclonal, AC-15)**  
Catalog # ABO10494**Specification****Anti-Beta-Actin Antibody (Monoclonal, AC-15) - Product Information**

Application	WB, IHC
Primary Accession	<a href="#">P60711</a>
Host	Mouse
Isotype	Mouse IgG1
Reactivity	Human, Mouse, Rat
Clonality	Monoclonal
Format	Lyophilized

**Description**

Mouse IgG monoclonal antibody for beta-Actin, actin, beta (ACTB) detection. Tested with WB, IHC-P in Human;mouse;rat. No cross reactivity with other proteins.

**Reconstitution**

Add 1ml of PBS buffer will yield a concentration of 100ug/ml.

**Anti-Beta-Actin Antibody (Monoclonal, AC-15) - Additional Information**

**Gene ID** 81822

**Other Names**

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

**Calculated MW**

41737 MW KDa

**Application Details**

Immunohistochemistry(Paraffin-embedded Section), 0.5-1 µg/ml, Human, mouse, rat, By Heat  
Western blot, 0.25-0.5 µg/ml µg/ml, Human, mouse, rat

**Subcellular Localization**

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

**Protein Name**

Actin, cytoplasmic 1

**Contents**

Mouse ascites fluid, 1.2% sodium acetate, 2mg BSA, with 0.01mg NaN<sub>3</sub> as preservative.

**Immunogen**

slightly modified beta-cytoplasmic actin N-terminal peptide,  
Ac-Asp-Asp-Asp-Ile-Ala-Ala-Leu-Val-Ile-Asp-Asn-Gly-Ser-Gly-Lys, conjugated to KLH.

**Purification**

Ascites

### Cross Reactivity

No cross reactivity with other proteins

### Storage

At -20°C for one year. After r°Constitution, at 4°C for one month. It°Can also be aliquotted and stored frozen at -20°C for a longer time.Avoid repeated freezing and thawing.

### Sequence Similarities

Belongs to the actin family.

## Anti-Beta-Actin Antibody (Monoclonal, AC-15) - 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. Actin exists in both monomeric (G-actin) and polymeric (F-actin) forms, both forms playing key functions, such as cell motility and contraction. 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. Part of the ACTR1A/ACTB filament around which the dynactin complex is built. The dynactin multiprotein complex activates the molecular motor dynein for ultra-processive transport along microtubules (By similarity).

### Cellular Location

Cytoplasm, cytoskeleton {ECO:0000250|UniProtKB:P60709}. Nucleus {ECO:0000250|UniProtKB:P60709} Note=Localized in cytoplasmic mRNP granules containing untranslated mRNAs. {ECO:0000250|UniProtKB:P60709}

### Tissue Location

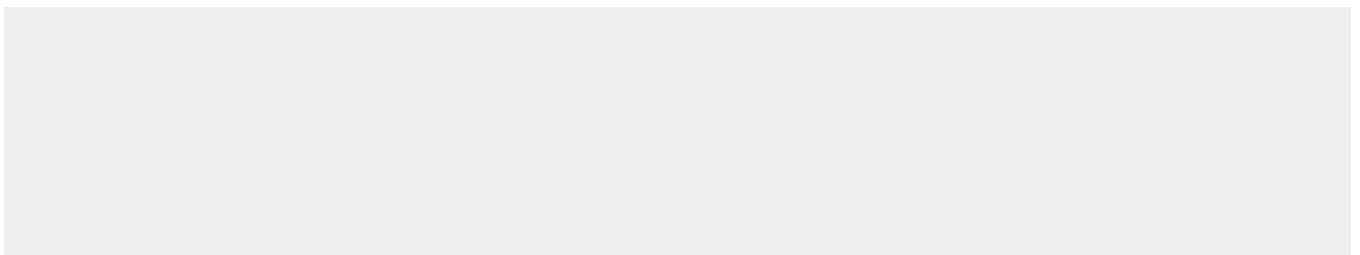
Expressed in the epididymis (at protein level).

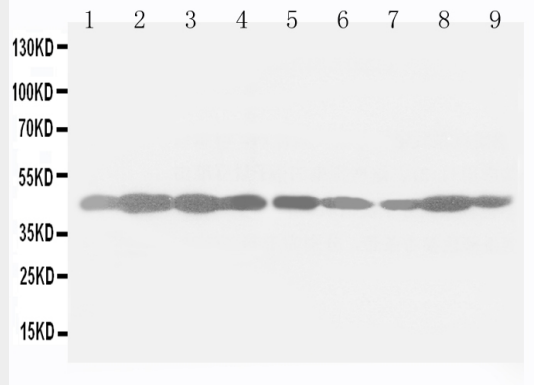
## Anti-Beta-Actin Antibody (Monoclonal, AC-15) - Protocols

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

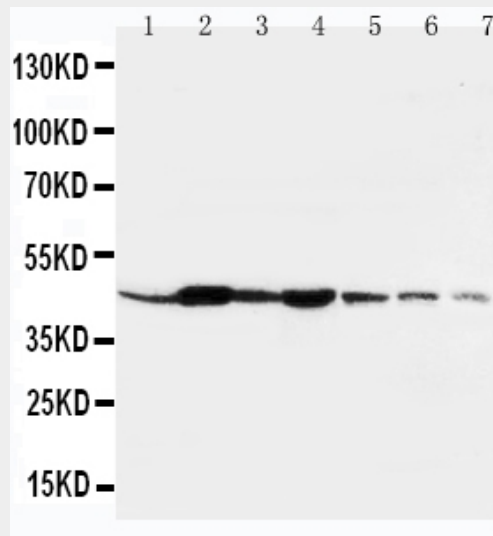
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

## Anti-Beta-Actin Antibody (Monoclonal, AC-15) - Images

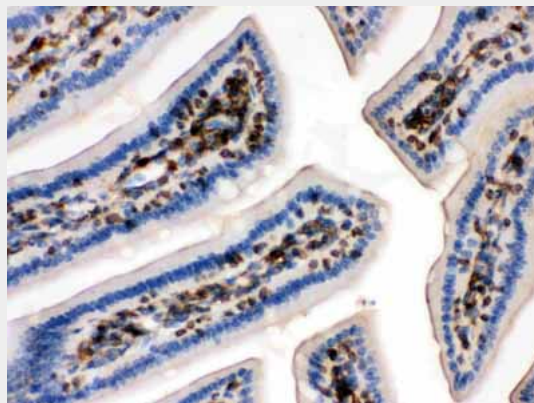




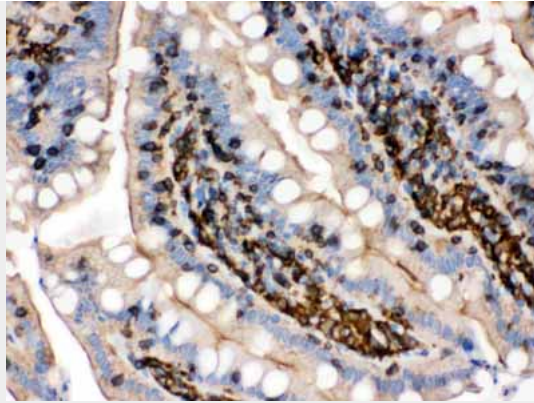
Anti-beta-Actin antibody (monoclonal), ABO10494, Western blotting  
 Lane 1: Rat Ovary Tissue Lysate  
 Lane 2: Rat Testis Tissue Lysate  
 Lane 3: Rat Cardiac Muscle Tissue Lysate  
 Lane 4: Rat Brain Tissue Lysate  
 Lane 5: A453 Cell Lysate  
 Lane 6: HE



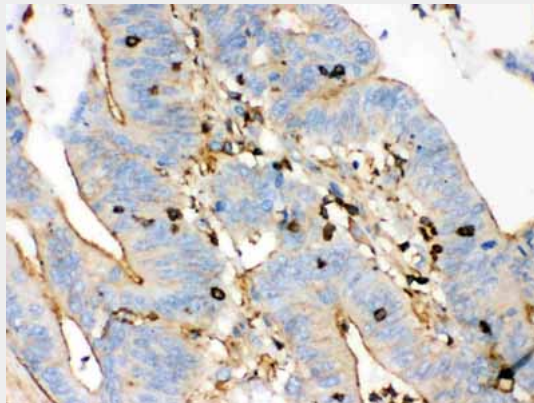
Anti-beta-Actin antibody (monoclonal), ABO10494, Western blotting  
 Lane 1: Rat Liver Tissue Lysate  
 Lane 2: Rat Spleen Tissue Lysate  
 Lane 3: Rat Brain Tissue Lysate  
 Lane 4: Rat Kidney Tissue Lysate  
 Lane 5: HELA Cell Lysate  
 Lane 6: SMMC Cell



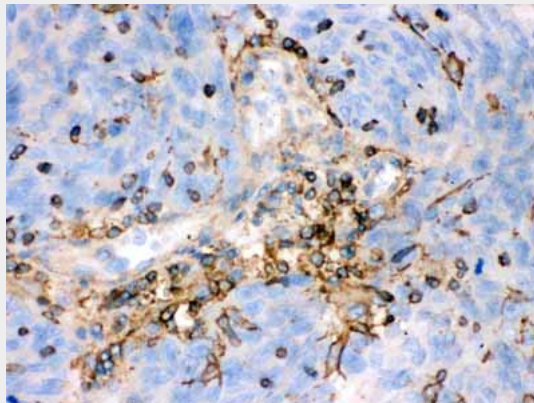
Anti-beta-Actin antibody (monoclonal), ABO10494, IHC(P)  
 IHC(P): Mouse Intestine Tissue



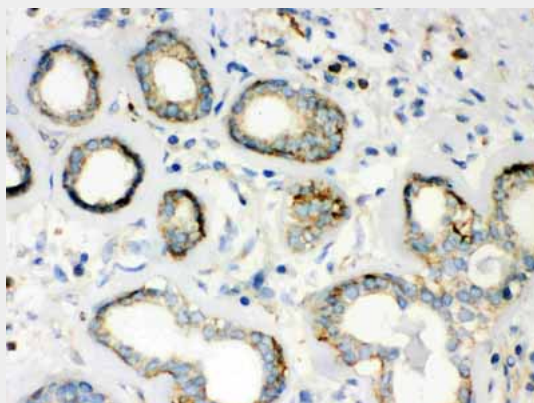
Anti-beta-Actin antibody (monoclonal), ABO10494, IHC(P)IHC(P): Rat Intestine Tissue



Anti-beta-Actin antibody (monoclonal), ABO10494, IHC(P)IHC(P): Human Intestinal Cancer Tissue



Anti-beta-Actin antibody (monoclonal), ABO10494, IHC(P)IHC(P): Human Lung Cancer Tissue



Anti-beta-Actin antibody (monoclonal), ABO10494, IHC(P)IHC(P): Human Mammary Cancer Tissue

### **Anti-Beta-Actin Antibody (Monoclonal, AC-15) - Background**

The primary site of action of cytochalasin B on cell motility processes is beta-actin. Habets et al.(1992) generated hybrids that harbor only specific regions of human chromosome 7 and assigned the ACTB locus to 7p15-p12. ACTB and the other assigned beta-actin-related sequences are dispersed over at least four different chromosomes including one locus assigned to the X chromosome. A mutation of beta-actin that alters depolymerization dynamics is associated with autosomal dominant developmental malformations, deafness, and dystonia.