10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

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

Catalog # ABO10494

Specification

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

Application	**WB, IHC-P**
Primary Accession	P60711
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.
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Protein Name
Actin, cytoplasmic 1

Contents
Mouse ascites fluid, 1.2% sodium acetate, 2mg BSA, with 0.01mg NaN3 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 (By similarity). Actin exists in both monomeric (G-actin) and polymeric (F-actin) forms, both forms playing key functions, such as cell motility and contraction (By similarity). 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 (By similarity). 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 protafilaments (By similarity). 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 {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 Cytomety
- Cell Culture

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

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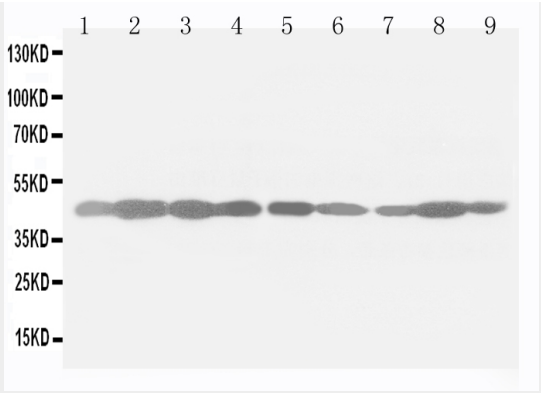
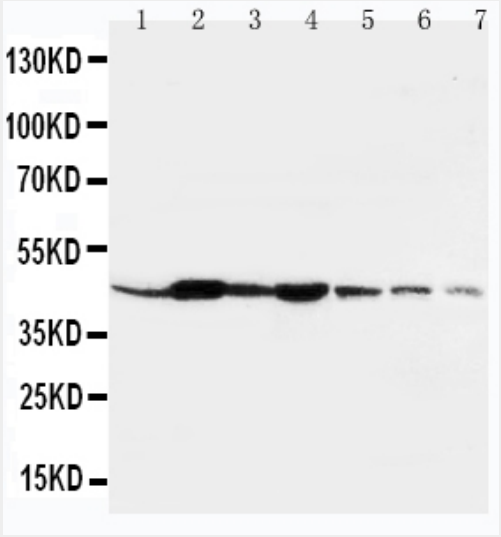
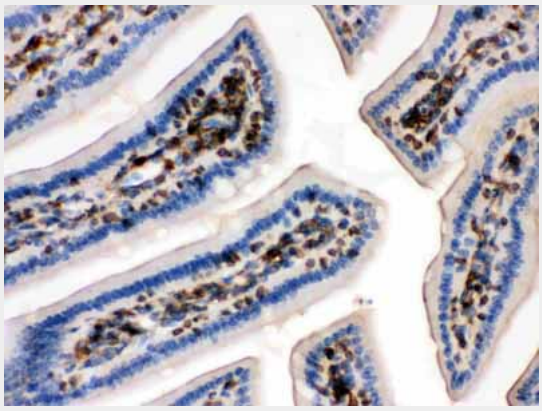


Anti-beta-Actin antibody (monoclonal), ABO10494, Western blottingLane 1: Rat Ovary Tissue LysateLane 2: Rat Testis Tissue LysateLane 3: Rat Cardiac Muscle Tissue LysateLane 4: Rat Brain Tissue LysateLane 5: A453 Cell LysateLane 6: HE



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



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

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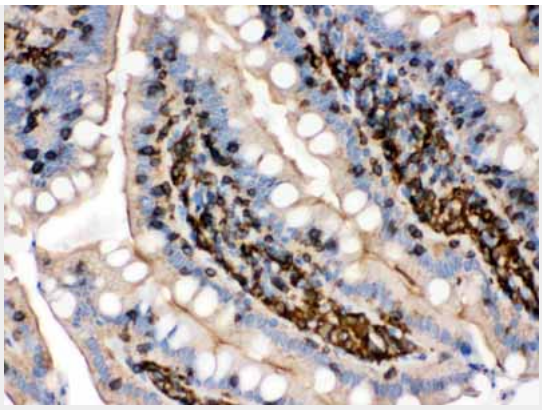
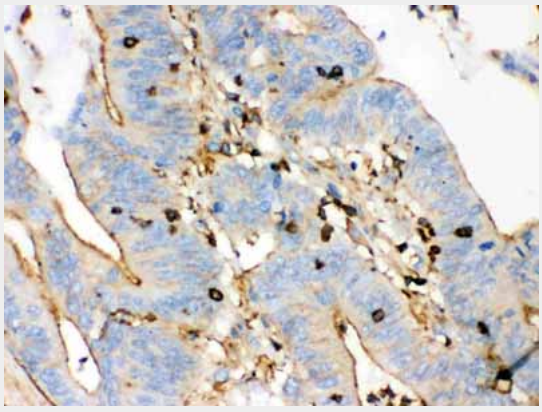
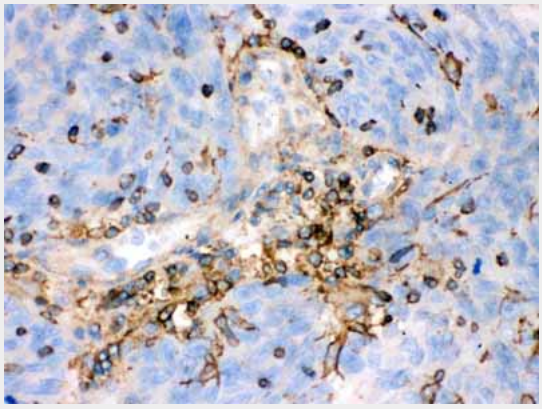


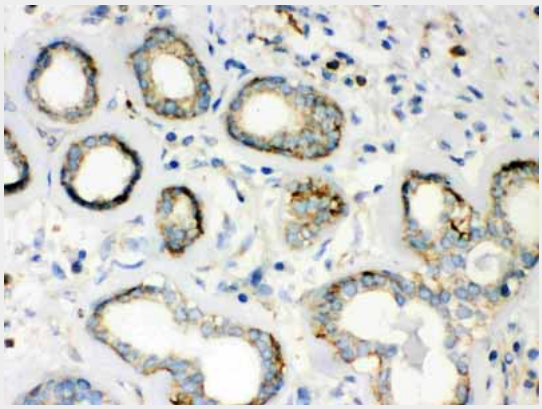
Anti-beta-Actin antibody (monoclonal), ABO10494, IHC(P)IHC(P): Rat Intestine Tissue



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



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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.