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

Catalog # ABO10494

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.

Additional Information

Gene ID	81822
Other Names	Actin, cytoplasmic 1, Beta-actin, Actin, cytoplasmic 1, N-terminally processed, Actb
Calculated MW	41737
Application Details	Immunohistochemistry(Paraffin-embedded Section), 0.5-1 □g/ml, Human, mouse, rat, By Heat Western blot, 0.25-0.5 □g/ml □g/ml, Human, mouse, rat
Subcellular Localization	Cytoplasm, cytoskeleton. Localized in cytoplasmic mRNP granules containing untranslated mRNAs. .
Source	Eukaryota
Protein Name	Actin, cytoplasmic 1
Contents	Mouse ascites fluid, 1.2% sodium acetate, 2mg BSA, with 0.01mg NaN3 as preservative.
Clone Names	AC-15
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.

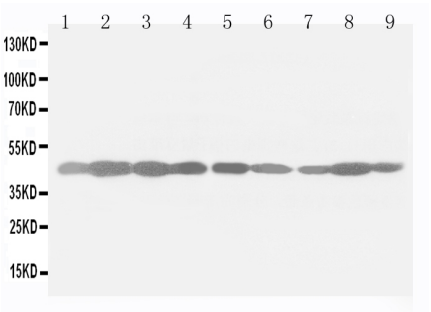
Protein Information

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).

Background

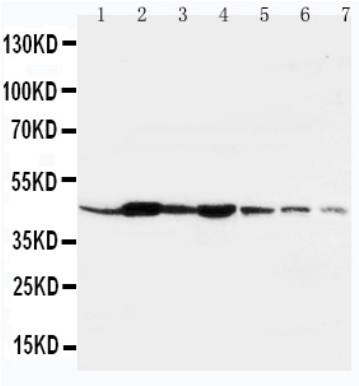
The primary site of action of cytochalasin B on cell motility processes is beta-actin. Habets et al.(1992) generated hybrids that harbor only specific regions of human chromosome 7 and assigned the ACTB locus to 7p15-p12. ACTB and the other assigned beta-actin-related sequences are dispersed over at 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.

Images

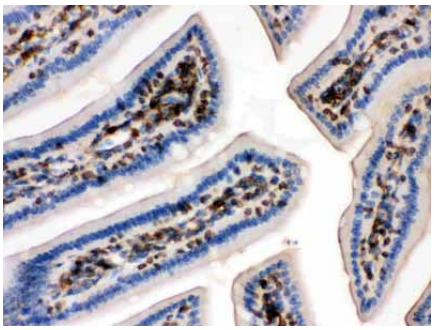


Anti-beta-Actin antibody (monoclonal), ABO10494, Western blottingLane 1: Rat Ovary Tissue LysateLane 2: Rat Testis Tissue LysateLane 3: Rat Cardiac Muscle Tissue LysateLane 4: Rat Brain Tissue LysateLane 5: A453 Cell LysateLane 6: HE

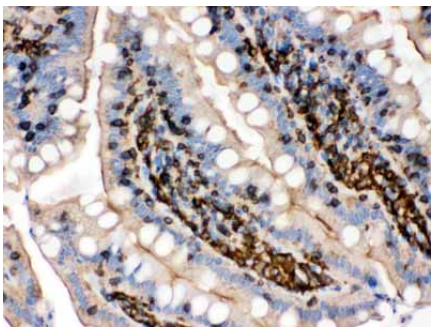
Anti-beta-Actin antibody (monoclonal), ABO10494, Western blottingLane 1: Rat Liver Tissue LysateLane 2: Rat Spleen Tissue LysateLane 3: Rat Brain Tissue LysateLane



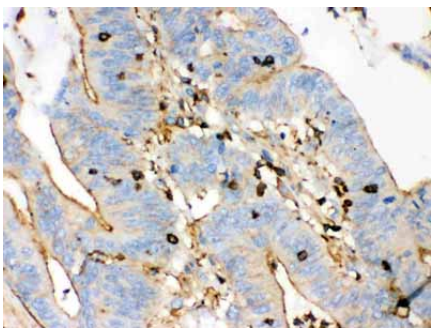
4: Rat Kidney Tissue LysateLane 5: HELA Cell LysateLane 6: SMMC Cell



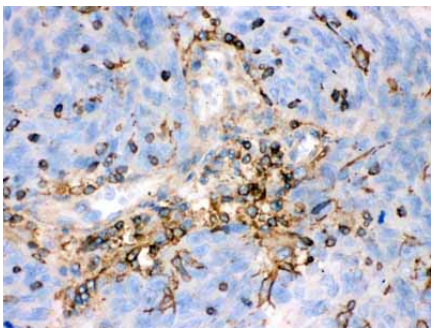
Anti-beta-Actin antibody (monoclonal), ABO10494, IHC(P)IHC(P): Mouse Intestine Tissue



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

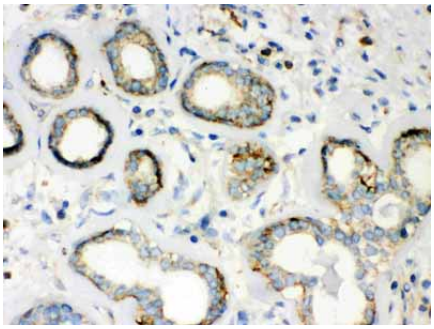


Anti-beta-Actin antibody (monoclonal), ABO10494, IHC(P)IHC(P): Human Intestinal Cancer Tissue



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



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