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Beta Actin Monoclonal Antibody

Mouse Monoclonal Antibody
Catalog # ABV11741

Product Information

Application	WB, E, IP
Primary Accession	P60709
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Isotype	Mouse IgG
Calculated MW	41737

Additional Information

Gene ID	60
Application & Usage	Western blot: 1-5 □g/ml; ELISA; Immunoblot Analysis: 0.5-2 □g/ml
Alias Symbol	Beta-Actin
Other Names	PS1TP5BP1 , ACTB, Beta-actin , b-actin
Appearance	Colorless liquid
Formulation	100 ug (1mg/ml) of antibody in 0.01M Tris-HCl, pH 8.0, 0.15M NaCl, and 0.02% sodium azide.
Reconstitution & Storage	-20 °C
Background Descriptions	
Precautions	Beta Actin Monoclonal Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

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, PubMed: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). 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 protafilaments (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.

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 contactile 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.