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beta Actin Mouse Monoclonal Antibody

Mouse mAb
Catalog # AP90038

Product Information

Application	WB
Primary Accession	P60709
Reactivity	Rat, Plants, Human, Mouse, Rabbit, Zebrafish, Hamster, Monkey, Chicken, Drosophila, Dog, Sheep
Clonality	Monoclonal
Other Names	ACTIN; ACTB; BETA-ACTIN; beta actin; actin beta;
Isotype	Mouse IgG2b
Host	Mouse
Calculated MW	41737

Additional Information

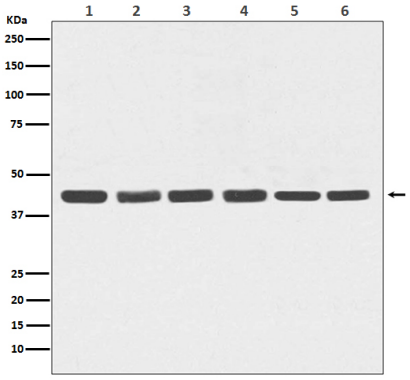
Dilution	WB 1:3000~1:10000
Purification	Affinity-chromatography
Immunogen	A synthesized peptide derived from human beta Actin
Description	beta-Actin is one of six different actin isoforms that have been identified. The actin molecules found in cells of various species and tissues tend to be very similar in their immunological and physical properties. Therefore, Antibodies against beta-Actin are useful as loading controls for Western Blotting. However it should be noted that levels of beta-Actin may not be stable in certain cells. For example, expression of beta-Actin in adipose tissue is very low and therefore it should not be used as loading control for these tissues.
Storage Condition and Buffer	Mouse IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol. Store at +4°C short term. Store at -20°C long term. Avoid freeze / thaw cycle.

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.

Images



Western blot analysis of beta Actin expression in (1) Hela; (2)Human fetal kidney lysate; (3) 3T3 cell lysate; (4) PC-12 cell lysate; (5) COS-1 cell lysate; (6) Goat muscle lysate.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.