

Rabbit Actin Polyclonal Antibody | anti-ACTB antibody

Actin (Tyr-53), Phospho-Specific

CATALOG # AAA71548	HOST Rabbit	REACTIVITY Human, Rat, Mouse, Chicken	APPLICATIONS Immunocytochemistry, ELISA, Western Blot
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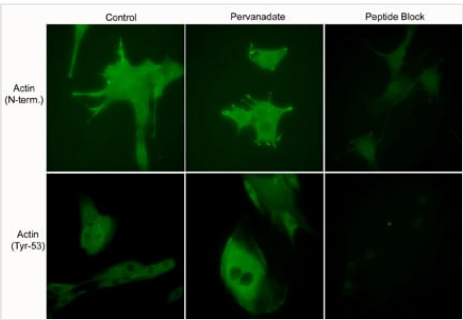
PRODUCT SYNONYMS

Actin; Polyclonal Antibody; Actin (Tyr-53); Phospho-Specific; anti-ACTB antibody

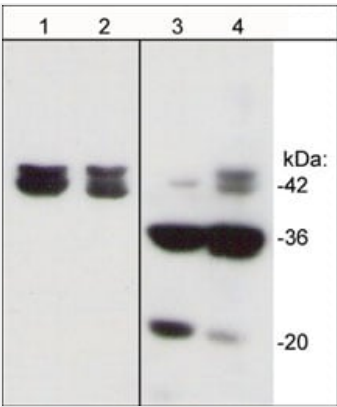
PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Rat, Mouse, Chicken
Clonality	Polyclonal
Specificity	This antibody detects a 42 kDa* protein corresponding to the molecular mass of Actin on SDS-PAGE immunoblots of pervanadate treated human C2C12 and SYF cSrc transformed cells, but not in control cells. In addition, this antibody either detects actin cleavage products at 36 and 20 kDa, or cross-reacts with unidentified proteins at these molecular weights in C2C12 cells. All molecular weights (MW) are confirmed by comparison to MW standards and to western blot mobilities of known proteins with similar MW. "Native" western blots utilizes non-reducing sample buffer (no mercaptoethanol or SDS), normal SDS-PAGE gel electrophoresis, and no methanol in transfer buffers.
Purity/Purification	Affinity Purified
Sequence Length	375
Applicable Applications for anti-ACTB antibody	ICC (Immunocytochemistry), ELISA, WB (Western Blot)
Buffer	Rabbit polyclonal, affinity-purified antibody is supplied in 100 uL phosphate buffered saline, 50% glycerol, 1 mg/mL BSA, and 0.05% sodium azide.
Immunogen	Phospho-Actin (Tyr-53) synthetic peptide (coupled to KLH) corresponding to amino acid residues around tyrosine 53 of human ? actin. This sequence is identical to similar regions in all four ? actins, as well as in ? actin, and is well conserved in actins from most eukaryotic species.
Preparation and Storage	Store at -20°C. Stable for 1 year.

IMAGES



ICC (Immunocytochemistry)
Immunocytochemical labeling using anti-Actin (N-terminal) and anti-Actin (Tyr-53) polyclonal antibodies in C2C12 cells control (left) or treated with pervanadate (1 mM) for 30 min (middle). The cells were fixed in paraformaldehyde and permeabilized in acetone. Both antibodies were used in the presence of blocking peptide: Actin (N-terminal) peptide or phospho-Actin (Tyr-53) peptide, respectively (right).



WB (Western Blot)
Western blot analysis of mouse C2C12 cells untreated (lanes 1 & 3), or treated with pervanadate (1 mM) for 30 min (lanes 2 & 4). The blot was probed with anti-Actin (N-terminal) antibody (lanes 1 & 2) or anti-Actin (Tyr-53) antibody (lanes 3 & 4).

ADDITIONAL INFORMATION

Related Product Information for anti-ACTB antibody	Actin is a major cytoskeletal protein involved in diverse cellular functions including cell motility, adhesion, and morphology. Six different actin isoforms have been identified in vertebrates. There are four alpha isoforms: skeletal, cardiac, and two smooth muscle (enteric and aortic) actins, along with two cytoplasmic actins (beta and gamma). Actin exists in two principal forms, globular, monomeric (G) actin, and filamentous polymeric (F) actin. The assembly and disassembly of actin filaments, and also their organization into functional networks, is regulated by a variety of actin-binding proteins (ABPs). Phosphorylation may also be important for regulating actin assembly and interaction with ABPs. In Dictyostelium, phosphorylation of Tyr-53 occurs in response to cell stress and this phosphorylation may alter actin polymerization. In B cells, SHP-1 tyrosine dephosphorylation of actin leads to actin filament depolymerization following BCR stimulation.
References	Vonach, C. et al. (2011) British J Cancer. 105:263. Jungbluth, A. et al. (1995) FEBS Let. 375:87.Baba, T. et al. (2003) J. Immunol. 170: 3762.Winder, S.J. et al. (2005) J. Cell Sci. 118:651.Liu, X. et al. (2006) Proc Nat Acad Sci U S A. 103(37):13694.

NCBI AND UNIPROT INFORMATION

NCBI GI #	4501885
NCBI GeneID	60
NCBI Accession #	NP_001092.1
NCBI GenBank Nucleotide #	NM_001101.5
UniProt Accession #	P60709
NCBI Official Full Name	actin, cytoplasmic 1
NCBI Official Synonym Full Names	actin beta
NCBI Official Symbol	ACTB
NCBI Official Synonym Symbols	BRWS1; PS1TP5BP1
NCBI Protein Information	actin, cytoplasmic 1
UniProt Protein Name	Actin, cytoplasmic 1
UniProt Gene Name	ACTB
UniProt Entry Name	ACTB_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/polyclonal/actin-antibody-immunocytochemistry-western-blot-elisa/71548>