

Rabbit ACTN1/2/3/4 Polyclonal Antibody | anti-ACTN1/2/3/4 antibody

ACTN1/2/3/4 Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA329597	Rabbit	Human, Mouse, Rat	ELISA, Immunocytochemistry, Immunofluorescence, Western Blot

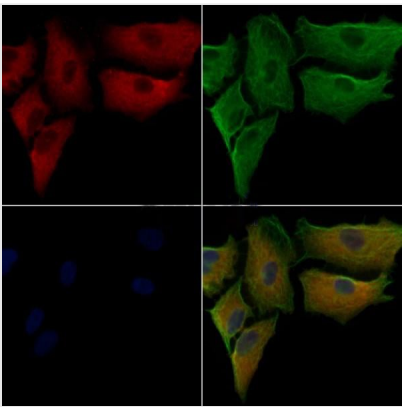
PRODUCT SYNONYMS

ACTN1/2/3/4; Polyclonal Antibody; ACTN1/2/3/4 Antibody; actinin 4; Actinin alpha 4; actinin4; ACTN 4; ACTN4; ACTN4_HUMAN; Alpha-actinin-4; DKFZp686K23158; F actin cross linking protein; F-actin cross-linking protein; Focal segmental glomerulosclerosis 1; FSGS 1; FSGS; FSGS1; Non muscle alpha actinin 4; Non-muscle alpha-actinin 4; actinin 1 smooth muscle; Actinin alpha 1; actinin; alpha 1; ACTN 1; Actn1; ACTN1_HUMAN; Alpha Actinin 1; Alpha actinin cytoskeletal isoform; Alpha-actinin cytoskeletal isoform; Alpha-actinin-1; BDPLT15; FLJ40884; FLJ54432; Non muscle alpha actinin 1; Non-muscle alpha-actinin-1; Actin binding protein; Actinin alpha 2; ACTN 2; ACTN2; ACTN2_HUMAN; Alpha actinin 2; Alpha actinin skeletal muscle; Alpha actinin skeletal muscle isoform 2; Alpha-actinin skeletal muscle isoform 2; Alpha-actinin-2; CMD1AA; Actinin alpha 3; alpha; ACTN 3; ACTN3; ACTN3_HUMAN; anti-ACTN1/2/3/4 antibody

PRODUCT SPECIFICATIONS

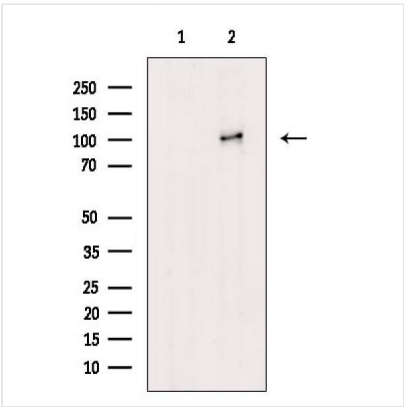
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Isotype	Rabbit IgG
Specificity	ACTN1/2/3/4 Antibody detects endogenous levels of total ACTN1/2/3/4. Tissue Specificity: Widely expressed.
Purity/Purification	The antiserum was purified by peptide affinity chromatography using SulfoLink Coupling Resin
Form/Format	Liquid. Rabbit IgG in phosphate buffered saline, pH7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Applicable Applications for anti-ACTN1/2/3/4 antibody	ELISA (Peptide ELISA), ICC (Immunocytochemistry), IF (Immunofluorescence), WB (Western Blot)
Immunogen	A synthesized peptide derived from human ACTN1/2/3/4.
Conjugation	Unconjugated
Fragment	Fab fragment
Post Translational Modifications	Ubiquitinated by FBXL22, leading to proteasomal degradation.
Subunit Structure	Homodimer; antiparallel (By similarity). Binds TRIM3 at the N-terminus (By similarity). Interacts with MICALL2 (preferentially in opened conformation); stimulated by RAB13 activation (By similarity). Identified in a complex with CASK, IQGAP1, MAGI2, NPHS1, SPTAN1 and SPTBN1 (By similarity). Identified in a IGF2BP1-dependent mRNP granule complex containing untranslated mRNAs. Component of the CART complex, at least composed of ACTN4, HGS/HRS, MYO5B and TRIM3. Interacts with BAIAP1 and PDLIM2. Interacts with PPARG and RARA. Binds to VCL; this interaction triggers VCL conformational changes.
Similarity	Contains one Leu-Xaa-Xaa-Leu-Leu (LXXLL) motif that mediates interaction with nuclear receptors.Belongs to the alpha-actinin family.
Subcellular Location	Nucleus. Cytoplasm. Cell junction. Cytoplasm>Cytoskeleton>Stress fiber. Note: Localized in cytoplasmic mRNP granules containing untranslated mRNAs. Nuclear translocation can be induced by the PI3 kinase inhibitor wortmannin or by cytochalasin D. Exclusively localized in the nucleus in a limited number of cell lines (breast cancer cell line MCF-7, oral floor cancer IMC-2, and bladder cancer KU-7).
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.

IMAGES



IF (Immunofluorescence)

Staining A549 cells by IF/ICC. The samples were fixed with PFA and permeabilized in 0.1% Triton X-100, then blocked in 10% serum for 45 minutes at 25 degree C. Samples were then incubated with primary Ab(AF6766) and mouse anti-beta tubulin Ab(T0023) for 1 hour at 37 degree C. An AlexaFluor594 conjugated goat anti-rabbit IgG(H+L) Ab(Red) and an AlexaFluor488 conjugated goat anti-mouse IgG(H+L) Ab(Green) were used as the secondary antibody. The nuclear counter stain is DAPI (blue).



WB (Western Blot)

Western blot analysis of extracts from P19 cells(lps treatment), using ACTN1/2/3/4 Antibody. The lane on the left was treated with blocking peptide.

ADDITIONAL INFORMATION

Related Product Information for anti-ACTN1/2/3/4 antibody	F-actin cross-linking protein which is thought to anchor actin to a variety of intracellular structures. This is a bundling protein (Probable). Probably involved in vesicular trafficking via its association with the CART complex. The CART complex is necessary for efficient transferrin receptor recycling but not for EGFR degradation. Involved in tight junction assembly in epithelial cells probably through interaction with MICALL2. Links MICALL2 to the actin cytoskeleton and recruits it to the tight junctions (By similarity). May also function as a transcriptional coactivator, stimulating transcription mediated by the nuclear hormone receptors PPARG and RARA.
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NCBI AND UNIPROT INFORMATION

NCBI GI #	4501891
NCBI GeneID	87
NCBI Accession #	NP_001093.1
NCBI GenBank Nucleotide #	NM_001102.3
UniProt Accession #	P12814; P35609; Q08043; O43707
Molecular Weight	103,058 Da
NCBI Official Full Name	alpha-actinin-1 isoform b
NCBI Official Synonym Full Names	actinin, alpha 1
NCBI Official Symbol	ACTN1
NCBI Official Synonym Symbols	BDPLT15
NCBI Protein Information	alpha-actinin-1; actinin 1 smooth muscle; non-muscle alpha-actinin-1; F-actin cross-linking protein; alpha-actinin cytoskeletal isoform
UniProt Protein Name	Alpha-actinin-1
UniProt Gene Name	ACTN1
UniProt Entry Name	ACTN1_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/actn1-2-3-4-antibody-peptide-elisa-immunocytochemistry-immunofluorescence-western-blot-elisa/329597>