

Rabbit ACTN2 Polyclonal Antibody | anti-ACTN2 antibody

Anti-ACTN2 Antibody Picoband

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA126331	Rabbit	Human, Mouse, Rat	ELISA, Flow Cytometry, Functional Assay, Immunohistochemistry, Western Blot

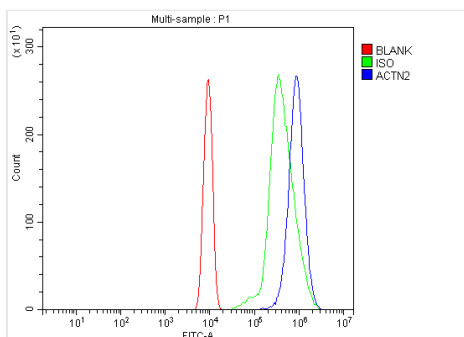
PRODUCT SYNONYMS

ACTN2; Polyclonal Antibody; Anti-ACTN2 Antibody Picoband; anti-ACTN2 antibody

PRODUCT SPECIFICATIONS

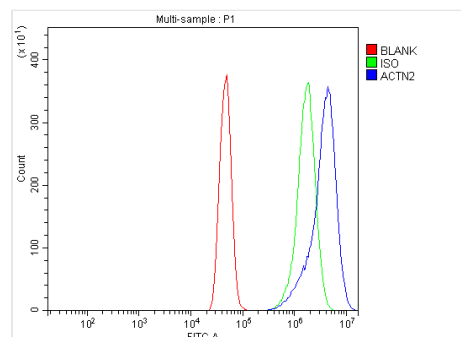
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Isotype	Rabbit IgG
Purity/Purification	Immunogen affinity purified.
Form/Format	Lyophilized Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na ₂ HPO ₄ .
Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml. (varies by lot)
Applicable Applications for anti-ACTN2 antibody	ELISA, FCM/FACS (Flow Cytometry), IHC (Immunohistochemistry), WB (Western Blot)
Reconstitution	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.
Immunogen	E Coli-derived human ACTN2 recombinant protein (Position: E567-E696).
Preparation and Storage	Store at -20 degree C for one year from date of receipt. After reconstitution, at 4 degree C for one month. It can also be aliquotted and stored frozen at -20 degree C for six months. Avoid repeated freezing and thawing.

IMAGES



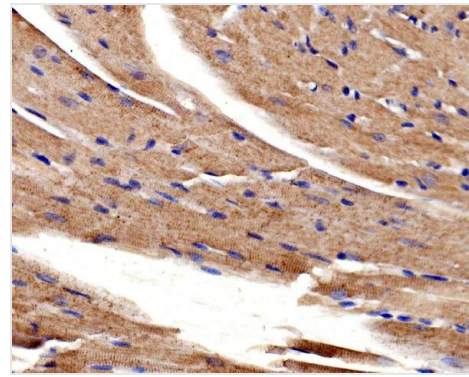
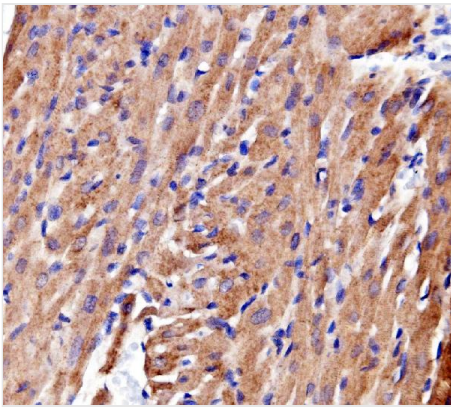
FCM/FACS (Flow Cytometry)

Figure 5. Flow Cytometry analysis of ANA-1 cells using anti-ACTN2 antibody (AAA126331). Overlay histogram showing ANA-1 cells stained with AAA126331 (Blue line). The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-ACTN2 Antibody (AAA126331, 1 ug/1x10⁶ cells) for 30 min at 20 degree C. DyLight488 conjugated goat anti-rabbit IgG was used as secondary antibody for 30 minutes at 20 degree C. Isotype control antibody (Green line) was rabbit IgG (1 ug/1x10⁶) used under the same conditions. Unlabelled sample (Red line) was also used as a control.



FCM/FACS (Flow Cytometry)

Figure 4. Flow Cytometry analysis of A431 cells using anti-ACTN2 antibody (AAA126331). Overlay histogram showing A431 cells stained with AAA126331 (Blue line). The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-ACTN2 Antibody (AAA126331, 1 ug/1x10⁶ cells) for 30 min at 20 degree C. DyLight488 conjugated goat anti-rabbit IgG was used as secondary antibody for 30 minutes at 20 degree C. Isotype control antibody (Green line) was rabbit IgG (1 ug/1x10⁶) used under the same conditions. Unlabelled sample (Red line) was also used as a control.

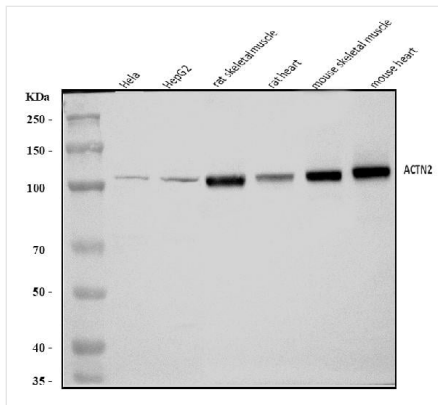


IHC (Immunohistochemistry)

Figure 2. IHC analysis of ACTN2 using anti-ACTN2 antibody (AAA126331). ACTN2 was detected in a paraffin-embedded section of mouse cardiac tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-ACTN2 Antibody (AAA126331) overnight at 4 degree C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) with DAB as the chromogen.

IHC (Immunohistochemistry)

Figure 3. IHC analysis of ACTN2 using anti-ACTN2 antibody (AAA126331). ACTN2 was detected in a paraffin-embedded section of rat cardiac tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-ACTN2 Antibody (AAA126331) overnight at 4 degree C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) with DAB as the chromogen.



WB (Western Blot)

Figure 1. Western blot analysis of ACTN2 using anti-ACTN2 antibody (AAA126331). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel)/90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions. Lane 1: human Hela whole cell lysates, Lane 2: human HEPG2 whole cell lysates, Lane 3: rat skeletal muscle tissue lysates, Lane 4: rat heart tissue lysates, Lane 5: mouse skeletal muscle tissue lysates, Lane 6: mouse heart tissue lysates. After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-ACTN2 antigen affinity purified polyclonal antibody (#AAA126331) at 0.5 ug/mL overnight at 4 degree C, then washed with TBS-0.1% Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:5000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit with Tanon 5200 system. A specific band was detected for ACTN2 at approximately 104 kDa. The expected band size for ACTN2 is at 104 kDa.

ADDITIONAL INFORMATION

Related Product Information for anti-ACTN2 antibody

Alpha-actinin 2 is a protein which in humans is encoded by the ACTN2 gene. Alpha actinins belong to the spectrin gene superfamily which represents a diverse group of cytoskeletal proteins, including the alpha and beta spectrins and dystrophins. Alpha actinin is an actin-binding protein with multiple roles in different cell types. In nonmuscle cells, the cytoskeletal isoform is found along microfilament bundles and adherens-type junctions, where it is involved in binding actin to the membrane. In contrast, skeletal, cardiac, and smooth muscle isoforms are localized to the Z-disc and analogous dense bodies, where they help anchor the myofibrillar actin filaments. This gene encodes a muscle-specific, alpha actinin isoform that is expressed in both skeletal and cardiac muscles. Several transcript variants encoding different isoforms have been found for this gene.

Product Categories/Family for anti-ACTN2 antibody

Primary Antibodies, Rabbit Polyclonal Antibodies

NCBI AND UNIPROT INFORMATION

NCBI GI #	507588250
NCBI GeneID	88
NCBI Accession #	NP_001265273.1
NCBI GenBank Nucleotide #	NM_001278344.1
UniProt Accession #	P35609; Q86TF4; Q86TI8; B1ANE4
Molecular Weight	103,854 Da
NCBI Official Full Name	alpha-actinin-2 isoform 3
NCBI Official Synonym Full Names	actinin, alpha 2
NCBI Official Symbol	ACTN2
NCBI Official Synonym Symbols	CMD1AA
NCBI Protein Information	alpha-actinin-2; F-actin cross-linking protein; alpha-actinin skeletal muscle
UniProt Protein Name	Alpha-actinin-2
UniProt Gene Name	ACTN2
UniProt Entry Name	ACTN2_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/actn2-antibody-flow-cytometry-immunohistochemistry-western-blot-elisa/126331>