

Product datasheet for **TA346071**

ACTN2 Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	IHC, WB
Recommended Dilution:	WB, IHC
Reactivity:	Human
Host:	Rabbit
Isotype:	IgG
Clonality:	Polyclonal
Immunogen:	The immunogen for anti-ACTN2 antibody: synthetic peptide directed towards the C terminal of human ACTN2. Synthetic peptide located within the following region: VIASFRILASDKPYILAEELRRELPPDQAQYCIKRMPPAYSGPGSVPGALD
Formulation:	Liquid. Purified antibody supplied in 1x PBS buffer with 0.09% (w/v) sodium azide and 2% sucrose. <i>Note that this product is shipped as lyophilized powder to China customers.</i>
Purification:	Affinity Purified
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Predicted Protein Size:	98 kDa
Gene Name:	actinin alpha 2
Database Link:	NP_001094 Entrez Gene 88 Human P35609



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Background:

The alpha-actinins are a multigene family of four actin-binding proteins related to dystrophin. The two skeletal muscle isoforms of alpha-actinin (ACTN2 and ACTN3) are major structural components of the Z-line involved in anchoring the actin-containing thin filaments. In humans, ACTN2 is expressed in all muscle fibres, while ACTN3 expression is restricted to a subset of type 2 fibres. Murine Actn2 and Actn3 are differentially expressed, spatially and temporally, during embryonic development and, in contrast to humans, alpha-actinin-2 expression does not completely overlap alpha-actinin-3 in postnatal skeletal muscle, suggesting independent function. 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. Transcript variants resulting from the use of multiple poly_A sites have been observed.

Synonyms:

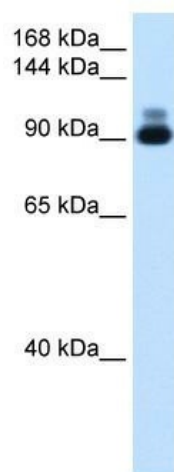
CMD1AA

Note:

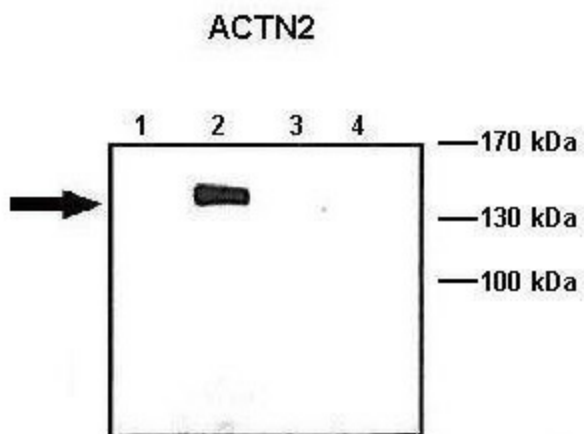
Immunogen Sequence Homology: Dog: 100%; Pig: 100%; Rat: 100%; Horse: 100%; Human: 100%; Mouse: 100%; Bovine: 100%; Rabbit: 100%; Guinea pig: 100%; Zebrafish: 86%

Protein Pathways:

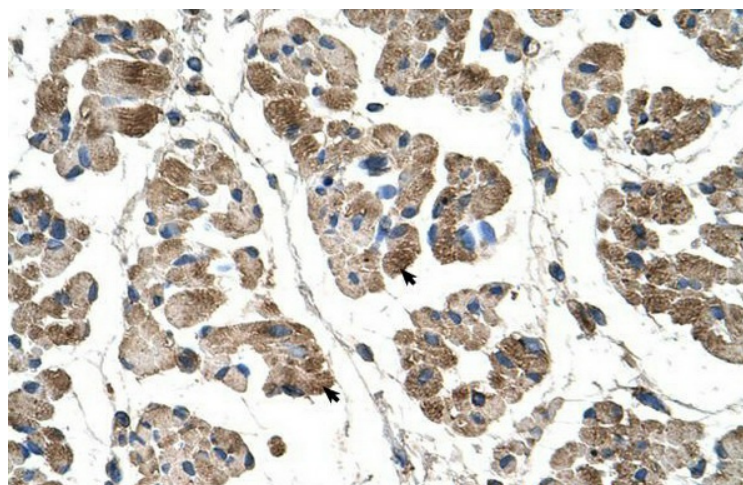
Adherens junction, Arrhythmogenic right ventricular cardiomyopathy (ARVC), Focal adhesion, Leukocyte transendothelial migration, Regulation of actin cytoskeleton, Systemic lupus erythematosus, Tight junction

Product images:

WB Suggested Anti-ACTN2 Antibody Titration:
1.25 ug/ml; Positive Control: Human heart



Lanes: Lane 1: 10 ug ACTN1-GFP transfected COS-7 lysate; Lane 2: 10 ug ACTN2-GFP transfected COS-7 lysate; Lane 3: 10 ug ACTN3-GFP transfected COS-7 lysate; Lane 4: 10 ug ACTN4-GFP transfected COS-7 lysate; Primary Antibody Dilution: 1: 1000; Secondary Antibody: Anti-rabbit HRP; Secondary Antibody Dilution: 1: 5000; Gene Name: ACTN2; Submitted by: Johannes W. Hell, University of California;



Rabbit Anti-ACTN2 Antibody; Paraffin Embedded Tissue: Human Muscle; Cellular Data: Skeletal muscle cells; Antibody Concentration: 4.0-8.0 ug/ml; Magnification: 400X