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Datasheet for ABIN2776829

anti-ACTN2 antibody (N-Term)

4 Images

1 Publication

Overview

Quantity:	100 µL
Target:	ACTN2
Binding Specificity:	N-Term
Reactivity:	Human, Mouse, Rat, Cow, Rabbit, Guinea Pig, Dog, Horse
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This ACTN2 antibody is un-conjugated
Application:	Western Blotting (WB), Immunohistochemistry (IHC)

Product Details

Immunogen:	The immunogen is a synthetic peptide directed towards the N terminal region of human ACTN2
Sequence:	NQIEPGVQYN VVYDEDEYMI QEEEWDRDLL LDPAWEKQQR KTFTAWCNSH
Predicted Reactivity:	Cow: 86%, Dog: 93%, Guinea Pig: 100%, Horse: 86%, Human: 100%, Mouse: 100%, Rabbit: 100%, Rat: 100%
Characteristics:	This is a rabbit polyclonal antibody against ACTN2. It was validated on Western Blot using a cell lysate as a positive control.
Purification:	Affinity Purified

Target Details

Target:	ACTN2
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Target Details

Alternative Name: [ACTN2 \(ACTN2 Products\)](#)

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. Publication Note: This RefSeq record includes a subset of the publications that are available for this gene. Please see the Entrez Gene record to access additional publications. PRIMARYREFSEQ_SPAN PRIMARY_IDENTIFIER PRIMARY_SPAN COMP 1-39 DC378038.1 17-55 40-2961 BC051770.1 1-2922 2962-3458 CB153006.1 65-561 3459-3637 AL359185.25 28531-28709 3638-4210 M86406.1 3609-4181 4211-4528 AL359185.25 29283-29600

Alias Symbols: CMD1AA

Protein Interaction Partner: ACTN2, FAM154A, BRMS1L, MICALL2, MYOZ2, PDLIM3, SP100, SNAI1, MOS, RTP5, SYNPO2, SUMO1, IGSF8, ERBB2IP, CAPN1, ZNF446, RPL35, UBC, NOS3, ACTN1, ACTN4, FBXL22, COIL, SUMO3, ATXN2, KCNA5, LDB3, KCNN2, PSMA3, ITGB3BP, SNW1, MED14, NR1I2, KAT2B, NRIP1, ATXN7,

Protein Size: 894

Molecular Weight: 104 kDa

Gene ID: 88

NCBI Accession: [NM_001103](#), [NP_001094](#)

UniProt: [P35609](#)

Pathways: [Cell-Cell Junction Organization](#), [Skeletal Muscle Fiber Development](#), [Negative Regulation of Transporter Activity](#)

Application Details

Application Notes: Optimal working dilutions should be determined experimentally by the investigator.

Comment: Antigen size: 894 AA

Restrictions: For Research Use only

Handling

Format: Liquid

Concentration: Lot specific

Buffer: Liquid. Purified antibody supplied in 1x PBS buffer with 0.09 % (w/v) sodium azide and 2 % sucrose.

Preservative: Sodium azide

Precaution of Use: This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.

Handling Advice: Avoid repeated freeze-thaw cycles.

Storage: -20 °C

Storage Comment: For short term use, store at 2-8°C up to 1 week. For long term storage, store at -20°C in small aliquots to prevent freeze-thaw cycles.

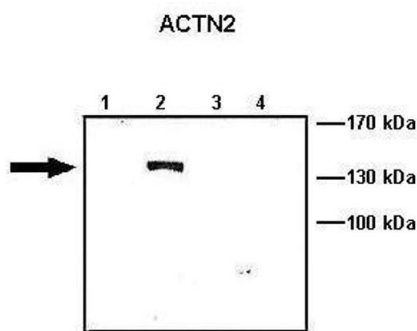
Publications

Product cited in: Mehrle, Rosenfelder, Schupp, del Val, Arlt, Hahne, Bechtel, Simpson, Hofmann, Hide, Glatting, Huber, Pepperkok, Poustka, Wiemann: "The LIFEdb database in 2006." in: **Nucleic acids research**, Vol. 34, Issue Database issue, pp. D415-8, (2005) ([PubMed](#)).



Western Blotting

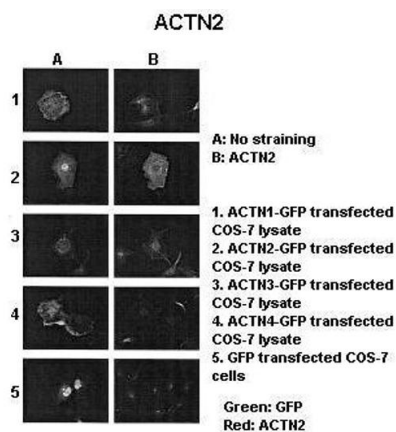
Image 1. WB Suggested Anti-ACTN2 Antibody Titration: 0.2-1 ug/ml ELISA Titer: 1:312500 Positive Control: Human Muscle



Western Blotting

Image 2. Lanes: Lane1: 10 ug ACTN1-GFP transfected COS-7 lysate Lane2: 10 ug ACTN2-GFP transfected COS-7 lysate Lane3: 10 ug ACTN3-GFP transfected COS-7 lysate Lane4: 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

See Immunoblot 2 Data and Customer Feedback for more Information



Immunohistochemistry

Image 3. Sample Type : ACTNX-GFP transfected COS-7 cells Primary Antibody Dilution : 1:1000 Secondary Antibody : Anti-rabbit-Alexa-Fluor 568 Secondary Antibody Dilution : 1:100 Color/Signal Descriptions : Green: GFP Red: ACTN2 Gene Name : ACTN2 Submitted by : Johannes W. Hell, Ph.D., Professor, Department of Pharmacology, University of California, Room 2419D Tupper Hall, Davis, CA 95616-5270, Phone: (530) 752 6540, Lab: (530) 752 7551, FAX: (530) 752 7710

See IHC 1 Data and Customer Feedback for more Information

Please check the [product details page](#) for more images. Overall 4 images are available for ABIN2776829.