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Datasheet for ABIN2775288

anti-alpha Actinin 4 antibody (N-Term)

4 Images

2 Publications

Overview

Quantity:	100 µL
Target:	alpha Actinin 4 (ACTN4)
Binding Specificity:	N-Term
Reactivity:	Human, Mouse, Rat, Dog, Cow, Guinea Pig, Zebrafish (Danio rerio), Horse, Rabbit
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This alpha Actinin 4 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 ACTN4
Sequence:	LIHRHRPELI EYDKLRKDDP VTNLNNAFEV AEKYLDIPKM LDAEDIVNTA
Predicted Reactivity:	Cow: 100%, Dog: 100%, Guinea Pig: 100%, Horse: 100%, Human: 100%, Mouse: 100%, Rabbit: 100%, Rat: 100%, Zebrafish: 93%
Characteristics:	This is a rabbit polyclonal antibody against ACTN4. It was validated on Western Blot using a cell lysate as a positive control.
Purification:	Protein A purified

Target Details

Target:	alpha Actinin 4 (ACTN4)
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Target Details

Alternative Name: ACTN4 ([ACTN4 Products](#))

Background: Alpha actinins belong to the spectrin 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. ACTN4 is a nonmuscle, alpha actinin isoform which is concentrated in the cytoplasm, and thought to be involved in metastatic processes. Mutations in its gene have been associated with focal and segmental glomerulosclerosis. 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 nonmuscle, alpha actinin isoform which is concentrated in the cytoplasm, and thought to be involved in metastatic processes. Mutations in this gene have been associated with focal and segmental glomerulosclerosis.

Alias Symbols: DKFZp686K23158, FSGS, FSGS1, ACTININ-4

Protein Interaction Partner: MYOZ2, HUWE1, UBC, BMP7, ACTN3, SUMO2, SUMO3, GNB2, SUMO1, NEDD8, MDM2, HGS, SF3A3, VCP, CDKN2A, ACTN1, PDLIM1, UBD, IGSF8, ICAM1, CD81, SVIL, Fcho2, POT1, VCAM1, TXN, RPS27, MAPK7, KPNA2, ITGA4, FN1, ESR1, CDH1, TRAF3IP1, FMNL1, NOS3, ACTN2, UBASH3B, SHC

Protein Size: 911

Molecular Weight: 100 kDa

Gene ID: 81

NCBI Accession: [NM_004924](#), [NP_004915](#)

UniProt: [O43707](#)

Pathways: [Proton Transport](#)

Application Details

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

Application Details

Comment: Antigen size: 911 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.

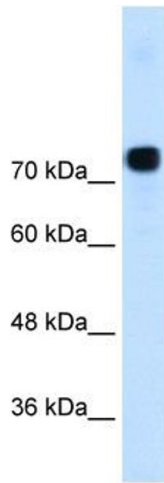
Handling Advice: Avoid repeated freeze-thaw cycles.

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: Tordjman, Leroyer, Chauvet, Qutte, Chauvet, Tomkiewicz, Chapron, Barouki, Forest, Aggerbeck, Antoine: "Cytosolic aspartate aminotransferase, a new partner in adipocyte glyceroneogenesis and an atypical target of thiazolidinedione." in: **The Journal of biological chemistry**, Vol. 282, Issue 32, pp. 23591-602, (2007) ([PubMed](#)).



Western Blotting

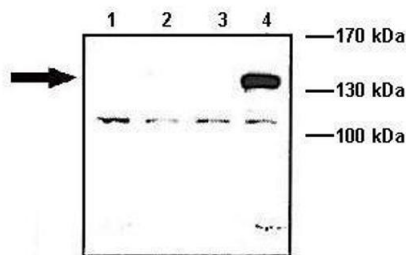
Image 1. WB Suggested Anti-ACTN4 Antibody Titration: 0.625ug/ml Positive Control: HCT116 cell lysate ACTN4 is supported by BioGPS gene expression data to be expressed in HCT116



Western Blotting

Image 2. WB Suggested Anti-ACTN4 Antibody Titration: 0.625 µg/mL Positive Control: HCT116 cell lysate ACTN4 is supported by BioGPS gene expression data to be expressed in HCT116

ACTN4



Western Blotting

Image 3. 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: ACTN4 Submitted by: Johannes W. Hell, University of California

See Immunoblot 2 Data and Customer Feedback for more Information

Please check the [product details page](#) for more images. Overall 4 images are available for ABIN2775288.