

Product datasheet

Anti-alpha Actinin/ACTN1 antibody [EP2528Y] ab81265

KO VALIDATED Recombinant RabMAb

6 Images

Overview

Product name	Anti-alpha Actinin/ACTN1 antibody [EP2528Y]
Description	Rabbit monoclonal [EP2528Y] to alpha Actinin/ACTN1
Host species	Rabbit
Tested applications	Suitable for: WB Unsuitable for: Flow Cyt, ICC/IF or IP
Species reactivity	Reacts with: Mouse, Rat, Human
Immunogen	Synthetic peptide within Human alpha Actinin/ACTN1 aa 750-850 (C terminal). The exact sequence is proprietary.
Positive control	WB: HAP1, A431, NIH 3T3, C2C12, C6 and A673 cell lysates and human skeletal muscle and human heart tissue lysates.
General notes	<p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none">- High batch-to-batch consistency and reproducibility- Improved sensitivity and specificity- Long-term security of supply- Animal-free production <p>For more information see here.</p> <p>Our RabMAb[®] technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb[®] patents.</p> <p>We are constantly working hard to ensure we provide our customers with best in class antibodies. As a result of this work we are pleased to now offer this antibody in purified format. We are in the process of updating our datasheets. The purified format is designated 'PUR' on our product labels. If you have any questions regarding this update, please contact our Scientific Support team.</p>

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C. Stable for 12 months at -20°C.
Storage buffer	pH: 7.20

	Preservative: 0.01% Sodium azide Constituents: 59% PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EP2528Y
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab81265 in the following tested applications. The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

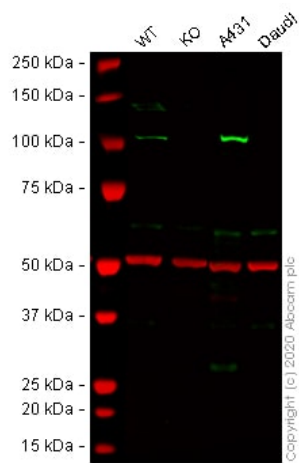
Application	Abreviews	Notes
WB		1/500 - 1/1000. Detects a band of approximately 103 kDa (predicted molecular weight: 103 kDa).

Application notes Is unsuitable for Flow Cyt, ICC/IF or IP.

Target

Function	F-actin cross-linking protein which is thought to anchor actin to a variety of intracellular structures. This is a bundling protein.
Sequence similarities	Belongs to the alpha-actinin family. Contains 1 actin-binding domain. Contains 2 CH (calponin-homology) domains. Contains 2 EF-hand domains. Contains 4 spectrin repeats.
Cellular localization	Cytoplasm > cytoskeleton. Cytoplasm > myofibril > sarcomere > Z line. Colocalizes with MYOZ2 and PPP3CA at the Z-line of heart and skeletal muscle.

Images



Western blot - Anti-alpha Actinin/ACTN1 antibody [EP2528Y] (ab81265)

All lanes : Anti-alpha Actinin/ACTN1 antibody [EP2528Y] (ab81265) at 1/1000 dilution

Lane 1 : Wild-type HAP1 cell lysate

Lane 2 : ACTN1 knockout HAP1 cell lysate

Lane 3 : A431 cell lysate

Lane 4 : Daudi cell lysate

Lysates/proteins at 20 µg per lane.

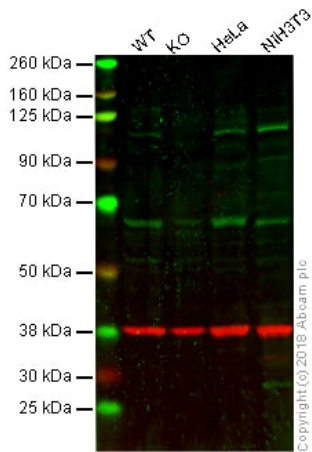
Performed under reducing conditions.

Predicted band size: 103 kDa

Observed band size: 115 kDa

Lanes 1 - 4: Merged signal (red and green). Green - ab81265 observed at 115 kDa. Red - loading control **ab7291** (Mouse anti-Alpha Tubulin [DM1A]) observed at 55kDa.

ab81265 was shown to react with ACTN1 in wild-type HAP1 cells in western blot with loss of signal observed in ACTN1 knockout sample. Wild-type and ACTN1 knockout HAP1 cell lysates were subjected to SDS-PAGE. Membranes were blocked in fluorescent western blot (TBS-based) blocking solution before incubation with ab81265 and **ab7291** (Mouse anti-Alpha Tubulin [DM1A]) overnight at 4°C at a 1 in 1000 Dilution and a 1 in 20000 dilution respectively. Blots were incubated with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preabsorbed (**ab216773**) and Goat anti-Mouse IgG H&L (IRDye® 680RD) preabsorbed (**ab216776**) secondary antibodies at 1 in 20000 dilution for 1 hour at room temperature before imaging.



Western blot - Anti-alpha Actinin/ACTN1 antibody [EP2528Y] (ab81265)

Lane 1: Wild-type HAP1 whole cell lysate (20 µg)

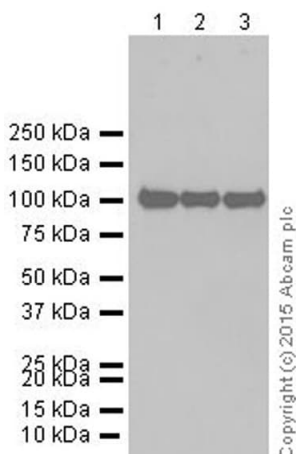
Lane 2: Alpha Actinin knockout HAP1 whole cell lysate (20 µg)

Lane 3: HeLa whole cell lysate (20 µg)

Lane 4: NIH 3T3 whole cell lysate (20 µg)

Lanes 1 - 4: Merged signal (red and green). Green - ab81265 observed at 103 kDa. Red - loading control, **ab9484**, observed at 37 kDa.

ab81265 was shown to recognize alpha Actinin in wild-type HAP1 cells as signal was lost at the expected MW in alpha Actinin knockout cells. Additional cross-reactive bands were observed in the wild-type and knockout cells. Wild-type and alpha Actinin knockout samples were subjected to SDS-PAGE. ab81265 and **ab9484** (Mouse anti-GAPDH loading control) were incubated overnight at 4°C at 1/500 dilution and 1/20000 dilution respectively. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preabsorbed **ab216773** and Goat anti-Mouse IgG H&L (IRDye® 680RD) preabsorbed **ab216776** secondary antibodies at 1/20000 dilution for 1 hour at room temperature before imaging.



Western blot - Anti-alpha Actinin/ACTN1 antibody [EP2528Y] (ab81265)

All lanes : Anti-alpha Actinin/ACTN1 antibody [EP2528Y] (ab81265) at 1/1000 dilution (purified)

Lane 1 : NIH/3T3 whole cell lysate

Lane 2 : C2C12 whole cell lysate

Lane 3 : C6 whole cell lysate

Lysates/proteins at 20 µg per lane.

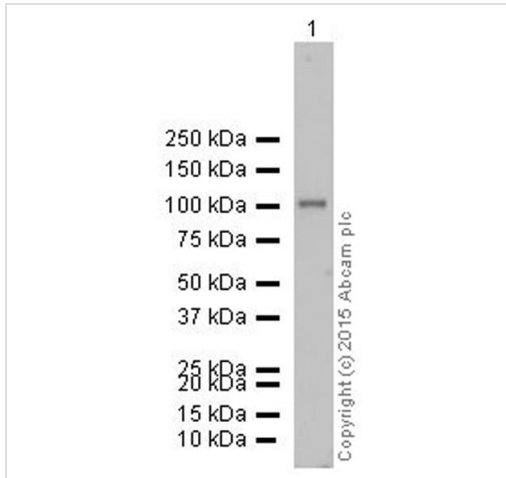
Secondary

All lanes : Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/20000 dilution

Predicted band size: 103 kDa

Observed band size: 103 kDa

Blocking and dilution buffer: 5% NFDm/TBST



Western blot - Anti-alpha Actinin/ACTN1 antibody [EP2528Y] (ab81265)

Anti-alpha Actinin/ACTN1 antibody [EP2528Y] (ab81265) at 1/1000 dilution (purified) + A673 whole cell lysate at 20 µg

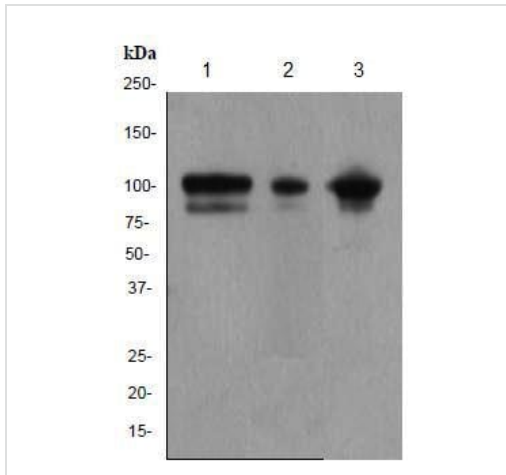
Secondary

Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) at 1/20000 dilution

Predicted band size: 103 kDa

Observed band size: 103 kDa

Blocking and dilution buffer: 5% NFDm/TBST



Western blot - Anti-alpha Actinin/ACTN1 antibody [EP2528Y] (ab81265)

All lanes : Anti-alpha Actinin/ACTN1 antibody [EP2528Y] (ab81265) at 1/1000 dilution (unpurified)

Lane 1 : NIH 3T3 cell lysate

Lane 2 : human skeletal muscle tissue lysate

Lane 3 : human heart tissue lysate

Lysates/proteins at 10 µg per lane.

Secondary

All lanes : HRP-conjugated goat anti-rabbit IgG at 1/2000 dilution

Predicted band size: 103 kDa

Observed band size: 103 kDa

Why choose a recombinant antibody?



Research with confidence
Consistent and reproducible results



Long-term and scalable supply
Recombinant technology



Success from the first experiment
Confirmed specificity



Ethical standards compliant
Animal-free production

Anti-alpha Actinin/ACTN1 antibody [EP2528Y]
(ab81265)

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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