

Product datasheet

Anti-Actin antibody [EPR16875] ab200658

Recombinant RabMAb

7 Images

Overview

Product name	Anti-Actin antibody [EPR16875]
Description	Rabbit monoclonal [EPR16875] to Actin
Host species	Rabbit
Tested applications	Suitable for: WB, ICC/IF, Flow Cyt
Species reactivity	Reacts with: Mouse, Rat, Chicken, Human
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
Positive control	WB: Jurkat, HepG2, HeLa, UMNSAH/DF-1, C6 and RAW 264.7 cell lysates; Mouse brain, heart, kidney and spleen lysates; Rat brain, heart and kidney lysates. ICC/IF: HeLa cells. Flow Cyt: HeLa cells

General notes

This product is a recombinant monoclonal antibody, which offers several advantages including:

- High batch-to-batch consistency and reproducibility
- Improved sensitivity and specificity
- Long-term security of supply
- Animal-free production

For more information [see here](#).

Our RabMAb[®] technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to [RabMAb[®] patents](#).

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 long term. Avoid freeze / thaw cycle.
Storage buffer	pH: 7.2 Preservative: 0.01% Sodium azide Constituents: 59% PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
Purity	Protein A purified

Clonality	Monoclonal
Clone number	EPR16875
Isotype	IgG

Applications

The Abpromise guarantee Our [Abpromise guarantee](#) covers the use of ab200658 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		1/2000. Detects a band of approximately 42 kDa (predicted molecular weight: 42 kDa).
ICC/IF		1/1000.
Flow Cyt		1/100.

Target

Function Actins are highly conserved proteins that are involved in various types of cell motility and are ubiquitously expressed in all eukaryotic cells.

Involvement in disease Defects in ACTA1 are the cause of nemaline myopathy type 3 (NEM3) [MIM:161800]. A form of nemaline myopathy. Nemaline myopathies are muscular disorders characterized by muscle weakness of varying severity and onset, and abnormal thread-or rod-like structures in muscle fibers on histologic examination. The phenotype at histological level is variable. Some patients present areas devoid of oxidative activity containing (cores) within myofibers. Core lesions are unstructured and poorly circumscribed.

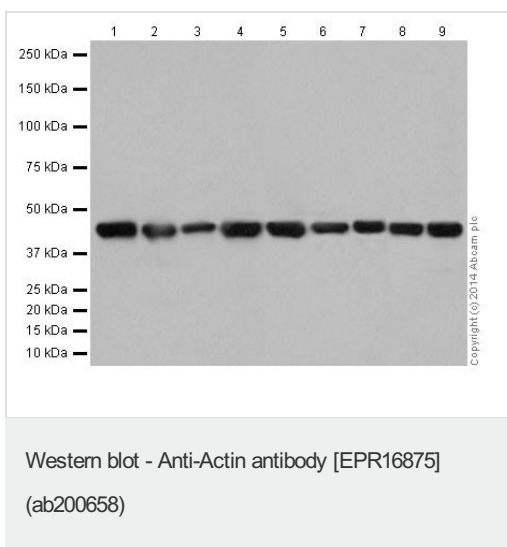
Defects in ACTA1 are a cause of myopathy congenital with excess of thin myofilaments (MPCETM) [MIM:161800]. A congenital muscular disorder characterized at histological level by areas of sarcoplasm devoid of normal myofibrils and mitochondria, and replaced with dense masses of thin filaments. Central cores, rods, ragged red fibers, and necrosis are absent.

Defects in ACTA1 are a cause of congenital myopathy with fiber-type disproportion (CFTD) [MIM:255310]; also known as congenital fiber-type disproportion myopathy (CFTDM). CFTD is a genetically heterogeneous disorder in which there is relative hypotrophy of type 1 muscle fibers compared to type 2 fibers on skeletal muscle biopsy. However, these findings are not specific and can be found in many different myopathic and neuropathic conditions.

Sequence similarities Belongs to the actin family.

Cellular localization Cytoplasm > cytoskeleton.

Images



All lanes : Anti-Actin antibody [EPR16875] (ab200658) at 1/2000 dilution

Lane 1 : Mouse brain lysate

Lane 2 : Mouse heart lysate

Lane 3 : Mouse kidney lysate

Lane 4 : Mouse spleen lysate

Lane 5 : Rat brain lysate

Lane 6 : Rat heart lysate

Lane 7 : Rat kidney lysate

Lane 8 : C6 (Rat glial tumor cells) cell lysate

Lane 9 : RAW 264.7 (Mouse macrophage cells transformed with Abelson murine leukemia virus) cell lysate

Lysates/proteins at 10 µg per lane.

Secondary

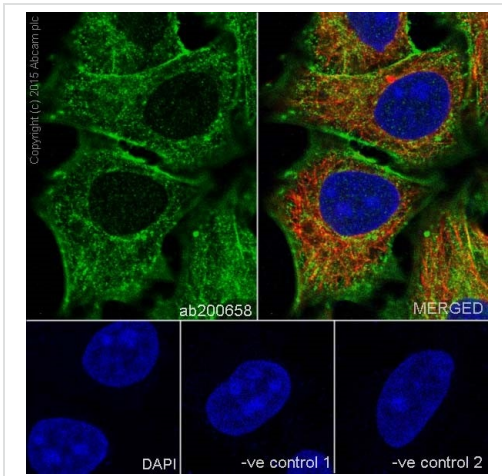
All lanes : Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/1000 dilution

Predicted band size: 42 kDa

Observed band size: 42 kDa

Exposure time: 5 seconds

Blocking/Dilution buffer: 5% NFDM/TBST.



Immunocytochemistry/ Immunofluorescence - Anti-Actin antibody [EPR16875] (ab200658)

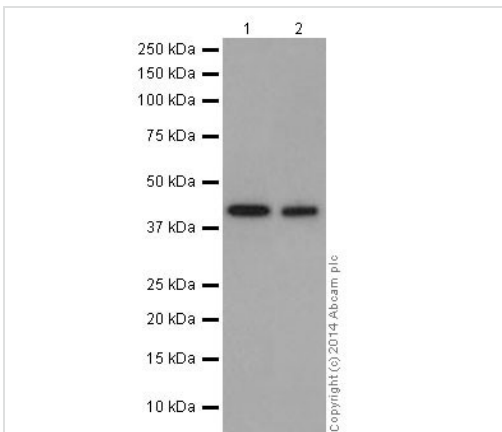
Immunofluorescent analysis of 100% Methanol-fixed, 0.1% Triton X-100 permeabilized HeLa (Human epithelial cells from cervix adenocarcinoma) cells labeling Actin with ab200658 at 1/1000 dilution, followed by Goat anti-rabbit IgG (Alexa Fluor® 488) (ab150077) secondary antibody at 1/500 dilution (green). Cytoplasm staining on HeLa cell line is observed.

The nuclear counter stain is DAPI (blue). Tubulin is detected with ab7291 (anti-Tubulin mouse mAb) at 1/1000 dilution and ab150120 (AlexaFluor®594 Goat anti-Mouse secondary) at 1/500 dilution (red).

The negative controls are as follows:

-ve control 1: ab200658 at 1/1000 dilution followed by ab150120 (AlexaFluor®594 Goat anti-Mouse secondary) at 1/500 dilution.

-ve control 2: ab7291 (anti-Tubulin mouse mAb) at 1/1000 dilution followed by ab150077 (Alexa Fluor®488 Goat Anti-Rabbit IgG H&L) at 1/500 dilution.



Western blot - Anti-Actin antibody [EPR16875] (ab200658)

All lanes : Anti-Actin antibody [EPR16875] (ab200658) at 1/10000 dilution

Lane 1 : Jurkat (Human T cell leukemia cells from peripheral blood) cell lysate

Lane 2 : HepG2 (Human liver hepatocellular carcinoma) cell lysate

Lysates/proteins at 10 µg per lane.

Secondary

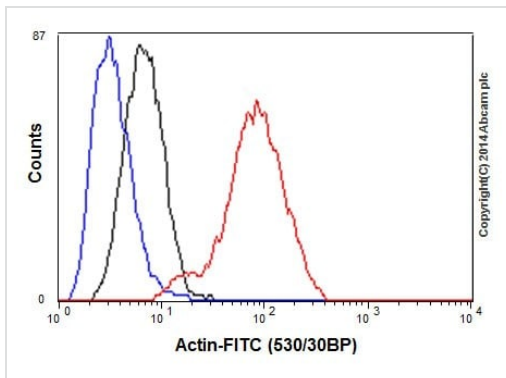
All lanes : Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/1000 dilution

Predicted band size: 42 kDa

Observed band size: 42 kDa

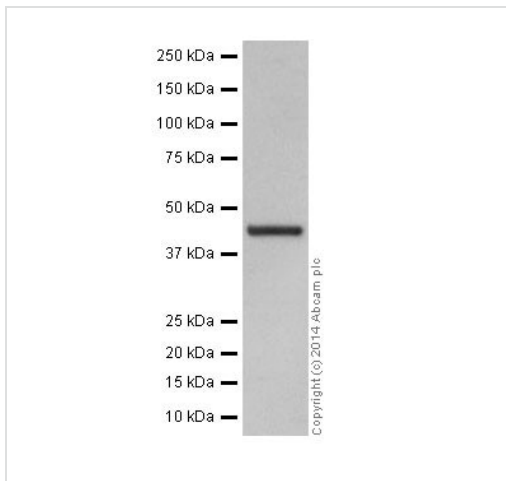
Exposure time: 3 minutes

Blocking/Dilution buffer: 5% NFDM/TBST.



Flow Cytometry (Intracellular) - Anti-Actin antibody [EPR16875] (ab200658)

Flow cytometric analysis of 2% paraformaldehyde-fixed HeLa (Human epithelial cells from cervix adenocarcinoma) cells labeling Actin with ab200658 at 1/100 dilution (red) compared with a rabbit monoclonal IgG isotype control (ab172730; black) and an unlabelled control (cells without incubation with primary antibody and secondary antibody; blue). Goat anti rabbit IgG (FITC) at 1/500 dilution was used as the secondary antibody.



Western blot - Anti-Actin antibody [EPR16875] (ab200658)

Anti-Actin antibody [EPR16875] (ab200658) at 1/2000 dilution + HeLa (Human epithelial cells from cervix adenocarcinoma) cell lysate at 20 μ g

Secondary

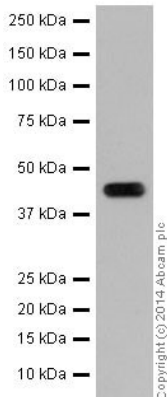
Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/1000 dilution

Predicted band size: 42 kDa

Observed band size: 42 kDa

Exposure time: 10 seconds

Blocking/Dilution buffer: 5% NFDm/TBST.



Western blot - Anti-Actin antibody [EPR16875] (ab200658)

Anti-Actin antibody [EPR16875] (ab200658) at 1/2000 dilution + UMNSAH/DF-1 (Transformed chicken embryonic fibroblast cells) cell lysate at 10 µg

Secondary

Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/1000 dilution

Predicted band size: 42 kDa

Observed band size: 42 kDa

Exposure time: 5 seconds

Blocking/Dilution buffer: 5% NFDm/TBST.

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-Actin antibody [EPR16875] (ab200658)

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

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