abcam

Product datasheet

Anti-Actin antibody [EPR16770] ab198991

Recombinant RabMAb

2 References 5 Images

Overview

Product name	Anti-Actin antibody [EPR16770]
Description	Rabbit monoclonal [EPR16770] to Actin
Host species	Rabbit
Tested applications	**Suitable for:** WB, IP
Species reactivity	**Reacts with:** Mouse, Rat, Human
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
Positive control	WB: HeLa, 293, C6, RAW 264.7, PC-12 and NIH/3T3 whole cell lysates; Human fetal brain, fetal heart, fetal kidney and fetal spleen lysates; Mouse brain, heart, kidney and spleen lysates; Rat brain, heart, kidney and spleen lysates. IP: 293 whole cell extract.
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	EPR16770

Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab198991 in the following tested applications.

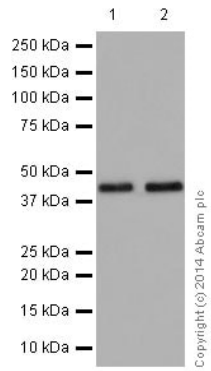
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB		1/20000. Detects a band of approximately 42 kDa (predicted molecular weight: 42 kDa).
IP		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 containg (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



Western blot - Anti-Actin antibody [EPR16770] (ab198991)

All lanes : Anti-Actin antibody [EPR16770] (ab198991) at 1/20000 dilution

Lane 1 : HeLa (Human epithelial cells from cervix adenocarcinoma) whole cell lysate
Lane 2 : 293 (Human embryonic kidney) whole cell lysate

Lysates/proteins at 10 µg per lane.

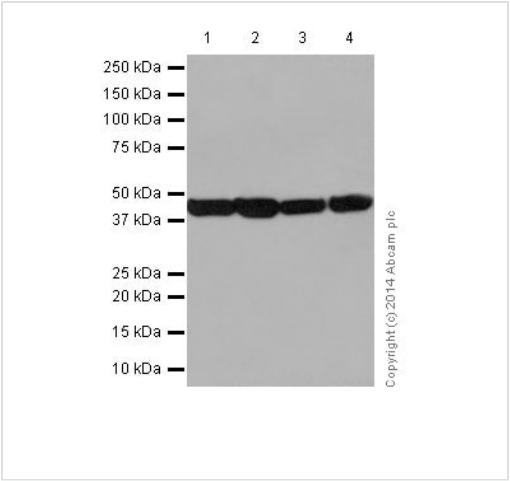
Secondary
All lanes : Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/1000 dilution

Predicted band size: 42 kDa
Observed band size: 42 kDa

Exposure time: 15 seconds

Blocking/Dilution buffer: 5% NFDM/TBST.

This antibody can recognize ACTS, ACTH, ACTG, ACTC, ACTB & ACTA, it is a pan Actin.



Western blot - Anti-Actin antibody [EPR16770] (ab198991)

All lanes : Anti-Actin antibody [EPR16770] (ab198991) at 1/20000 dilution

Lane 1 : Human fetal brain lysate
Lane 2 : Human fetal heart lysate
Lane 3 : Human fetal kidney lysate
Lane 4 : Human fetal spleen lysate

Lysates/proteins at 10 µg per lane.

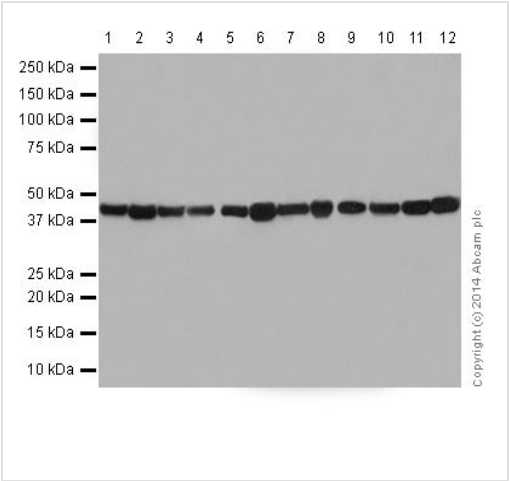
Secondary
All lanes : Anti-Rabbit IgG (HRP), specific to the non-reduced form of IgG at 1/1000 dilution

Predicted band size: 42 kDa
Observed band size: 42 kDa

Exposure time: 15 seconds

Blocking/Dilution buffer: 5% NFDM/TBST.

This antibody can recognize ACTS, ACTH, ACTG, ACTC, ACTB & ACTA, it is a pan Actin.



Western blot - Anti-Actin antibody [EPR16770] (ab198991)

All lanes : Anti-Actin antibody [EPR16770] (ab198991) at 1/20000 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 : Rat spleen lysate
Lane 9 : C6 (Rat glial tumor cells) whole cell lysate
Lane 10 : RAW 264.7 (Mouse macrophage cells transformed with Abelson murine leukemia virus) whole cell lysate
Lane 11 : PC-12 (Rat adrenal gland pheochromocytoma) whole cell lysate
Lane 12 : NIH/3T3 (Mouse embryo fibroblast cells) whole cell lysate

Lysates/proteins at 10 µg per lane.

Secondary

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

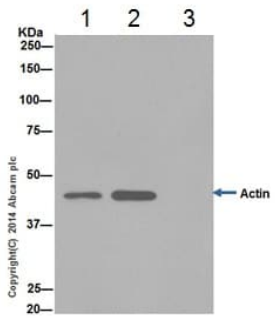
Predicted band size: 42 kDa

Observed band size: 42 kDa

Exposure time: 15 seconds

Blocking/Dilution buffer: 5% NFDM/TBST.

This antibody can recognize ACTS, ACTH, ACTG, ACTC, ACTB & ACTA, it is a pan Actin.



Immunoprecipitation - Anti-Actin antibody [EPR16770] (ab198991)

Actin was immunoprecipitated from 1mg of 293 (Human embryonic kidney) whole cell extract with ab198991 at 1/100 dilution. Western blot was performed from the immunoprecipitate using ab198991 at 1/1000 dilution. Anti-Rabbit IgG (HRP), specific to the non-reduced form of IgG, was used as secondary antibody at 1/1500 dilution.

Lane 1: 293 whole cell extract 10 µg (Input). Lane 2: ab198991 IP in 293 whole cell extract. Lane 3: Rabbit monoclonal IgG (**ab172730**) instead of ab198991 in 293 whole cell extract.
Blocking and dilution buffer and concentration: 5% NFDM/TBST.

Anti-Actin antibody [EPR16770] (ab198991)

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