abcam

Product datasheet

HRP Anti-Actin antibody [EPR16769] ab207674

Recombinant RabMAb

1 References 3 Images

Overview

Product name	HRP Anti-Actin antibody [EPR16769]
Description	HRP Rabbit monoclonal [EPR16769] to Actin
Host species	Rabbit
Conjugation	HRP
Tested applications	**Suitable for:** IHC-P, WB
Species reactivity	**Reacts with:** Mouse, Rat, Human **Predicted to work with:** Chicken
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
Positive control	WB: HeLa, HEK293, Raw264.7, NIH3T3, PC12 whole cell lysates; Human Heart, Mouse Heart, Rat Heart tissue lysates. IHC-P: FFPE human kidney (normal) tissue sections.
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. Avoid freeze / thaw cycle. Store In the Dark.
Storage buffer	pH: 7.40 Preservative: 0.1% Proclin 300 Solution Constituents: 30% Glycerol (glycerin, glycerine), 1% BSA, PBS
Purity	Protein A purified
Clonality	Monoclonal

Clone number	EPR16769
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab207674 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
IHC-P		1/50 - 1/100. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.
WB		1/5000. Detects a band of approximately 42 kDa (predicted molecular weight: 42 kDa).

Target

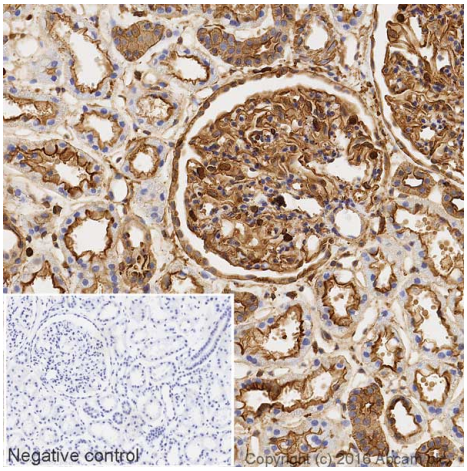
Function Actins are highly conserved proteins that are involved in various types of cell motility and are ubiquitously expressed in all eukaryotic cells.

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

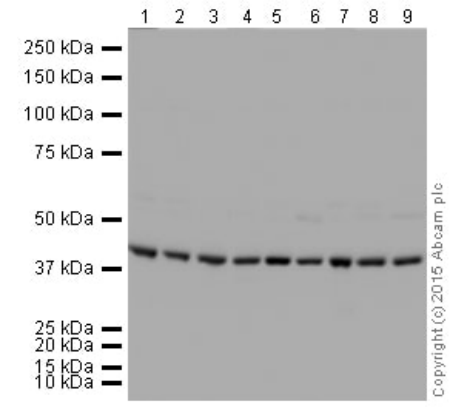


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - HRP Anti-Actin antibody [EPR16769] (ab207674)

IHC image of Actin staining in a section of formalin-fixed paraffin-embedded normal human kidney tissue* performed on a Leica BOND™. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH6, epitope retrieval solution 1) for 20mins. The section was then incubated with ab207674, 1/100 dilution, for 15 mins at room temperature. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX. The inset negative control image is taken from an identical assay without primary antibody.

For other IHC staining systems (automated and non-automated) customers should optimize variable parameters such as antigen retrieval conditions, primary antibody concentration and antibody incubation times.

**Tissue obtained from the Human Research Tissue Bank, supported by the NIHR Cambridge Biomedical Research Centre*



Western blot - HRP Anti-Actin antibody [EPR16769] (ab207674)

All lanes : HRP Anti-Actin antibody [EPR16769] (ab207674) at 1/5000 dilution

Lane 1 : HeLa (Human epithelial carcinoma cell line) Whole Cell Lysate
Lane 2 : HEK293 (Human) Whole Cell Lysate
Lane 3 : Human heart tissue lysate
Lane 4 : RAW 264.7 (Mouse leukaemic monocyte macrophage cell line) Whole Cell Lysate
Lane 5 : NIH 3T3 (Mouse) Whole Cell Lysate
Lane 6 : Mouse heart tissue lysate
Lane 7 : C6 (Rat glioma cell line) Whole Cell Lysate
Lane 8 : PC12 (Rat adrenal pheochromocytoma cell line) Whole Cell Lysate
Lane 9 : Rat heart tissue lysate

Lysates/proteins at 10 µg per lane.

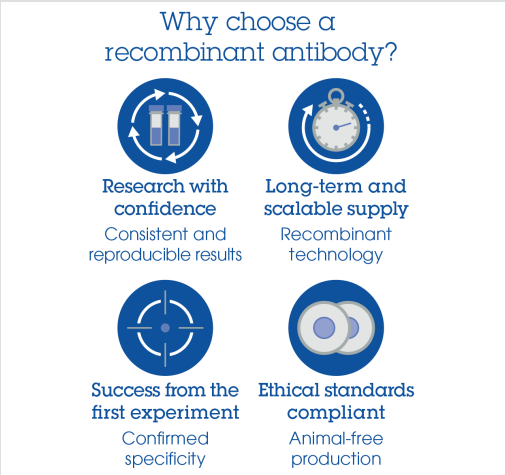
Developed using the ECL technique.

Performed under reducing conditions.

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

Exposure time: 6 seconds

This blot was produced using a 4-12% Bis-tris gel under the MOPS buffer system. The gel was run at 200V for 50 minutes before being transferred onto a Nitrocellulose membrane at 30V for 70 minutes. The membrane was then blocked for an hour using 2% Bovine Serum Albumin before being incubated with ab207674 overnight at 4°C. Antibody binding was visualised using ECL development solution **ab133406**.



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