


Product datasheet

Anti-ACTC1 antibody [EP184E] ab46805

Recombinant RabMAb

[21 References](#) [6 Images](#)

Overview

Product name	Anti-ACTC1 antibody [EP184E]
Description	Rabbit monoclonal [EP184E] to ACTC1
Host species	Rabbit
Tested applications	Suitable for: Flow Cyt (Intra), IHC-FoFr, IHC-P, ICC/IF, WB
Species reactivity	Reacts with: Human Predicted to work with: Mouse, Rat, Cow 
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
Positive control	A431 cell lysate; HeLa cells; human cardiac muscle
General notes	This product is a recombinant monoclonal antibody, which offers several advantages including: <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 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.
Storage buffer	pH: 7.20 Preservative: 0.01% Sodium azide Constituents: 59% PBS, 40% Glycerol (glycerin, glycerine), 0.5% BSA
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EP184E
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab46805 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
Flow Cyt (Intra)		1/20. ab172730 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.
IHC-FoFr		Use at an assay dependent concentration.
IHC-P		1/100 - 1/200. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.
ICC/IF		1/250 - 1/500.
WB		1/1000. 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 ACTC1 are the cause of cardiomyopathy dilated type 1R (CMD1R) [MIM:613424]. Dilated cardiomyopathy is a disorder characterized by ventricular dilation and impaired systolic function, resulting in congestive heart failure and arrhythmia. Patients are at risk of premature death.

Defects in ACTC1 are the cause of cardiomyopathy familial hypertrophic type 11 (CMH11) [MIM:612098]. Familial hypertrophic cardiomyopathy is a hereditary heart disorder characterized by ventricular hypertrophy, which is usually asymmetric and often involves the interventricular septum. The symptoms include dyspnea, syncope, collapse, palpitations, and chest pain. They can be readily provoked by exercise. The disorder has inter- and intrafamilial variability ranging from benign to malignant forms with high risk of cardiac failure and sudden cardiac death.

Defects in ACTC1 are the cause of atrial septal defect type 5 (ASD5) [MIM:612794]. A congenital heart malformation characterized by incomplete closure of the wall between the atria resulting in blood flow from the left to the right atria.

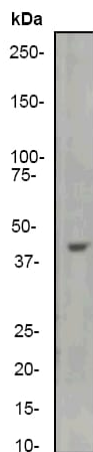
Sequence similarities

Belongs to the actin family.

Cellular localization

Cytoplasm > cytoskeleton.

Images



Western blot - Anti-ACTC1 antibody [EP184E] (ab46805)

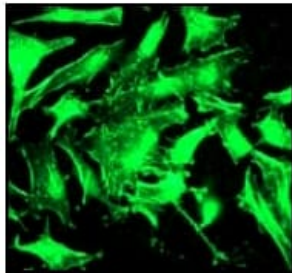
Anti-ACTC1 antibody [EP184E] (ab46805) at 1/1000 dilution + A431 cell lysate at 10ug/lane

Secondary

Goat anti-rabbit, HRP labelled. at 1/2000 dilution

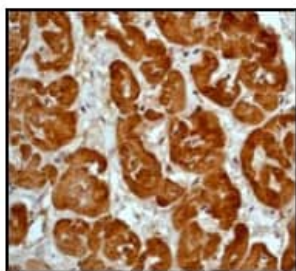
Predicted band size: 42 kDa

Observed band size: 42 kDa



Immunocytochemistry/ Immunofluorescence - Anti-ACTC1 antibody [EP184E] (ab46805)

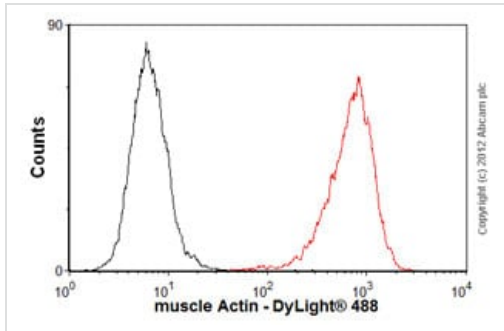
Immunofluorescent staining of HeLa cells using ab46805 at a 1/250 dilution.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-ACTC1 antibody [EP184E] (ab46805)

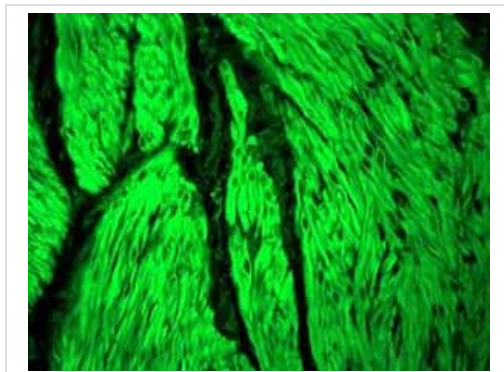
Immunohistochemical staining of paraffin-embedded human cardiac muscle using ab46805 at a 1/100 dilution.

Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.



Flow Cytometry (Intracellular) - Anti-ACTC1 antibody [EP184E] (ab46805)

Overlay histogram showing HeLa cells stained with ab46805 (red line). The cells were fixed with 80% methanol (5 min) and then permeabilized with 0.1% PBS-Tween for 20 min. The cells were then incubated in 1x PBS / 10% normal goat serum / 0.3M glycine to block non-specific protein-protein interactions followed by the antibody (ab46805, 1/100 dilution) for 30 min at 22°C. The secondary antibody used was DyLight® 488 goat anti-rabbit IgG (H+L) ([ab96899](#)) at 1/500 dilution for 30 min at 22°C. Isotype control antibody (black line) was rabbit IgG (monoclonal) (1µg/1x10⁶ cells) used under the same conditions. Acquisition of >5,000 events was performed. This antibody gave a positive signal in HeLa cells fixed with 4% paraformaldehyde (10 min)/permeabilized with 0.1% PBS-Tween for 20 min used under the same conditions.







Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-ACTC1 antibody [EP184E] (ab46805)

Fluorescent immunohistochemical analysis of paraffin-embedded human smooth muscle tissue using ab46805. Green-specific fluorescent staining.

Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.

Why choose a recombinant antibody?

 <p>Research with confidence Consistent and reproducible results</p>	 <p>Long-term and scalable supply Recombinant technology</p>
 <p>Success from the first experiment Confirmed specificity</p>	 <p>Ethical standards compliant Animal-free production</p>

Anti-ACTC1 antibody [EP184E] (ab46805)

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