abcam

ab194828

Anti-MYO1C antibody [EPR14771]

Recombinant | RabMAb

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.2 - 7.4 Preservative: 0.01% Sodium azide Constituents: PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Clone number	EPR14771
Purification technique	Affinity purification Protein A
Concentration	0.897 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

WB

Tested

Species	Mouse
Dilution info	1/1000 - 1/10000
Notes	-

Species	Rat

Dilution info	1/1000 - 1/10000
Notes	-

Species	Human
Dilution info	1/1000 - 1/10000
Notes	-

ICC/IF

Tested

Species	Human
Dilution info	1/100
Notes	-

Expected

Species	Mouse, Rat
Dilution info	Use at an assay dependent concentration.
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	1/80
Notes	-

Expected

Species	Mouse, Rat
Dilution info	Use at an assay dependent concentration.
Notes	-

IHC-P

Tested

Species	Human
Dilution info	1/100 - 1/200
Notes	-

Expected

Species	Mouse, Rat
Dilution info	Use at an assay dependent concentration.
Notes	-

Target data

See full target information Unconventional myosin-Ic

Function Myosins are actin-based motor molecules with ATPase activity. Unconventional myosins serve in intracellular movements. Their highly divergent tails are presumed to bind to membranous compartments, which would be moved relative to actin filaments. Involved in glucose transporter recycling in response to insulin by regulating movement of intracellular GLUT4-containing vesicles to the plasma membrane. Component of the hair cell's (the sensory cells of the inner ear) adaptation-motor complex. Acts as a mediator of adaptation of mechanoelectrical transduction in stereocilia of vestibular hair cells. Binds phosphoinositides and links the actin cytoskeleton to cellular membranes. Isoform 3. Involved in regulation of transcription. Associated with transcriptional active ribosomal genes. Appears to cooperate with the WICH chromatin-remodeling complex to facilitate transcription. Necessary for the formation of the first phosphodiester bond during transcription initiation.

Storage

Shipped at conditions	Conditional Ambient
Appropriate short-term storage duration	1-2 weeks
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	-20°C

Aliquoting information	Upon delivery aliquot
Storage information	Avoid freeze / thaw cycle

Notes

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

What are the advantages of a recombinant monoclonal antibody?
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 batch production

For more information, read more on recombinant antibodies.

Supplementary info

This supplementary information is collated from multiple sources and compiled automatically.

Activity summary	MYO1C also known as myosin IC is involved in intracellular transport. It works as a molecular motor that converts chemical energy into mechanical work playing a fundamental role in cellular processes. MYO1C has a molecular mass of approximately 122 kDa. It is ubiquitously expressed found in various tissues with a significant presence in the inner ear and kidneys and also in adipose tissue and platelets.
Biological function summary	The actions of MYO1C affect cellular movement and signal transduction. It cooperates with actin filaments forming part of the cytoskeletal complex. This complex aids in maintaining cellular shape and facilitating endocytosis and exocytosis. MYO1C's role is significant in cellular adaptation to stimuli and is part of chromatin dynamics influencing transcription regulation.
Pathways	MYO1C interacts with several key biological processes. It is notably involved in the insulin signaling pathway where it directly affects glucose uptake and metabolism. MYO1C also plays a part in the auditory signaling pathway contributing to hearing processes. Important related proteins in these pathways include actin which it closely associates with and GLUT4 a critical protein for glucose transport.
Associated diseases and disorders	MYO1C's dysfunction can lead to certain health issues. It has been linked to hearing impairments as it plays a role in auditory function. Additionally MYO1C is relevant in metabolic disorders such as insulin resistance due to its involvement with insulin signaling. The protein is indirectly connected with MLCK which affects muscle function and insulin response in these contexts.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

We do not recommend this combination. It is not covered by our product promise.

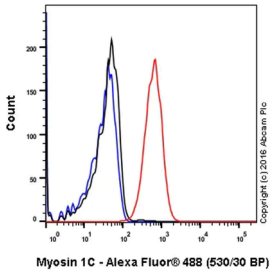
We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

Full details and terms and conditions can be found here:
Terms & Conditions.

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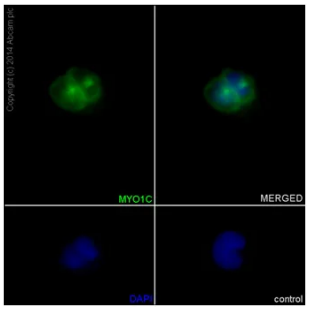
5 product images



Flow Cytometry (Intracellular) - Anti-MYO1C antibody [EPR14771] (ab194828)

MYO1C Flow Cytometry (Intracellular) staining using rabbit Anti-MYO1C antibody

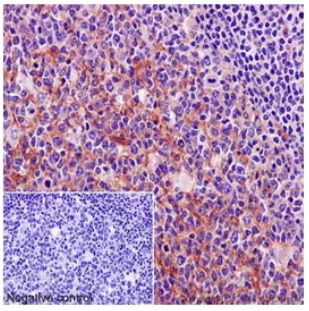
Intracellular Flow Cytometry analysis of HeLa cells labelling MYO1C (red) with purified ab194828 at dilution of 1/80. The secondary antibody used was Alexa Fluorr® 488 goat-anti-rabbit IgG (1/2000). Cells were fixed with 4% paraformaldehyde and permeabilised with 90% methanol. Isotype control antibody was Rabbit monoclonal IgG (black). The blue line shows cells without incubation with primary antibody and secondary antibody.



Immunocytochemistry/ Immunofluorescence - Anti-MYO1C antibody [EPR14771] (ab194828)

MYO1C Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-MYO1C antibody

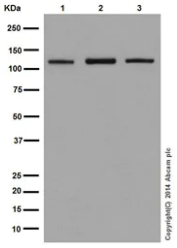
Immunofluorescent analysis of A431 cells labeling MYO1C with ab194828 at 1/100 dilution. A Goat anti rabbit IgG (Alexa Fluor488) at 1/400 dilution (ab150077) was used as secondary antibody. Cells were fixed with 4% paraformaldehyde and permeabilized with 0.1% triton X-100. Counterstain: DAPI. Cytoplasm and nuclear on A431 cell line was observed.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-MYO1C antibody [EPR14771] (ab194828)

MYO1C Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-MYO1C antibody

Immunohistochemical analysis of paraffin-embedded Human tonsil tissue labeling MYO1C with ab194828 at 1/200 dilution (5µg/ml). A Goat Anti-Rabbit IgG H&L (HRP) at 1/500 dilution was used as secondary (ab97051). Counterstain: Hematoxylin.
Inset image: negative control obtained using PBS instead of ab194828. Cytoplasm staining on Human tonsil was observed.
Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



Western blot - Anti-MYO1C antibody [EPR14771] (ab194828)

All lanes:
Western blot - Anti-MYO1C antibody [EPR14771] (ab194828) at 1/20000 dilution

Lane 1:
A431 cell lysate at 20 µg

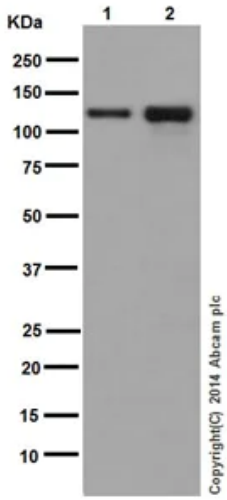
Lane 2:
HT1080 cell lysate at 20 µg

Lane 3:
293T cell lysate at 20 µg

Secondary

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

Predicted band size: 122 kDa



Western blot - Anti-MYO1C antibody [EPR14771] (ab194828)

All lanes:
Western blot - Anti-MYO1C antibody [EPR14771] (ab194828) at 1/2000 dilution

Lane 1:
Mouse heart lysate at 10 µg

Lane 2:
Rat heart lysate at 10 µg

Secondary

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

Predicted band size: 122 kDa

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.