abcam

ab204675

Alexa Fluor® 488 Anti-non-muscle Myosin IIA antibody [EPR8965]

Recombinant | RabMAb

Key facts

Isotype	IgG
Host species	Rabbit
Conjugation	Alexa Fluor® 488
Excitation/Emission	Ex: 495nm, Em: 519nm
Storage buffer	pH: 7.4 Preservative: 0.02% Sodium azide Constituents: PBS, 30% Glycerol (glycerin, glycerine), 1% BSA
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Clone number	EPR8965
Purification technique	Affinity purification Protein A
Concentration	0.5 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

ICC/IF

Tested

Species	Human
Dilution info	1/100
Notes	-

Flow Cyt (Intra)

Expected

Species	Human
Dilution info	Use at an assay dependent concentration.
Notes	-

IHC-P

Expected

Species	Human
Dilution info	Use at an assay dependent concentration.
Notes	-

Target data

See full target information Myosin-9

Function	Cellular myosin that appears to play a role in cytokinesis, cell shape, and specialized functions such as secretion and capping. Required for cortical actin clearance prior to oocyte exocytosis (By similarity). Promotes cell motility in conjunction with S100A4 (PubMed:16707441). During cell spreading, plays an important role in cytoskeleton reorganization, focal contact formation (in the margins but not the central part of spreading cells), and lamellipodial retraction; this function is mechanically antagonized by MYH10 (PubMed:20052411). (Microbial infection) Acts as a receptor for herpes simplex virus 1/HHV-1 envelope glycoprotein B.

Storage

Shipped at conditions	Blue Ice
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, Store in the dark

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.

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Supplementary info

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

Activity summary	Non-muscle Myosin IIA also known as Myosin Heavy Chain 9 or Myosin-9 is a motor protein that enables cellular mechanical tasks such as actin filament cross-linking and contraction. It has a molecular mass of approximately 226 kDa. Myosin IIA is expressed in a variety of cell types including epithelial cells fibroblasts and leukocytes where it contributes to various cellular activities. Myosin staining often reveals its localization at the leading edge of migrating cells revealing its involvement in cell movement.

Biological function summary	Non-muscle Myosin IIA plays an essential role in maintaining cell shape and promoting cell division. It combines with other myosin proteins into a complex often in conjunction with actin filaments. This myosin protein group further facilitates processes like cytokinesis and cellular migration. Myosin IIA's complex interactions allow cells to adapt to different mechanical stresses ensuring that cells can move and divide properly within the tissue architecture.
Pathways	Non-muscle Myosin IIA participates in both the RhoA/ROCK pathway and the actin cytoskeleton regulation pathway. Through these pathways Myosin IIA interacts with other key proteins such as Rho-associated protein kinase to mediate several cellular functions like cell shape changes and motility. These interactions allow Myosin IIA to efficiently transmit mechanical signals and respond to extracellular stimuli.
Associated diseases and disorders	Research links non-muscle Myosin IIA with specific conditions like cancer invasion and cardiovascular disorders. Abnormal function or expression of Myosin IIA can contribute to altered cell motility resulting in cancer metastasis. Additionally mutations or disruptions in Myosin IIA can associate with conditions such as thrombocytopenia. Proteins like integrins interact with Myosin IIA in these disease states highlighting their critical roles in pathological settings.

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

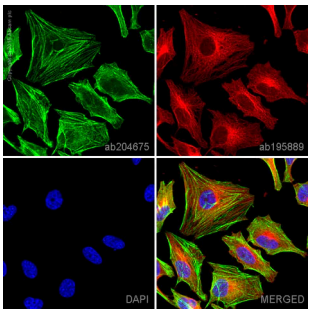
We do not recommend this combination. It is not covered by our product promise.

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.

1 product image



Immunocytochemistry/ Immunofluorescence - Alexa Fluor® 488 Anti-non-muscle Myosin IIA antibody [EPR8965] (ab204675)

Non-muscle Myosin IIA Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-non-muscle Myosin IIA antibody

ab204675 staining non-muscle Myosin IIA in HeLa cells. The cells were fixed with 4% formaldehyde (10 min), permeabilized with 0.1% Triton X-100 for 5 minutes and then blocked with 1% BSA/10% normal goat serum/0.3M glycine in 0.1% PBS-Tween for 1h. The cells were then incubated overnight at +4°C with ab204675 at 1/100 dilution (shown in green) and ab195889, Mouse monoclonal to alpha Tubulin (Alexa Fluor® 594), at 1/250 dilution (shown in red). Nuclear DNA was labelled with DAPI (shown in blue).
Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).

This product also gave a positive signal under the same testing conditions in HeLa cells fixed with 100% methanol (5 min).

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