abcam

ab52616

Anti-MARCKS antibody [EP1446Y]

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	EP1446Y
Purification technique	Affinity purification Protein A
Concentration	0.124 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IHC-P

Tested

Species	Human
Dilution info	-
Notes	-

IP

Not recommended

Species	Human
Dilution info	-
Notes	-

WB

Tested

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

ICC/IF

Tested

Species	Human
Dilution info	1/100 - 1/250
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	1/10
Notes	ab172730 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.

Target data

See full target information MARCKS

Function	Membrane-associated protein that plays a role in the structural modulation of the actin cytoskeleton, chemotaxis, motility, cell adhesion, phagocytosis, and exocytosis through lipid sequestering and/or protein docking to membranes

(PubMed:23704996, PubMed:36009319). Thus, exerts an influence on a plethora of physiological processes, such as embryonic development, tissue regeneration, neuronal plasticity, and inflammation. Sequesters phosphatidylinositol 4,5-bisphosphate (PIP2) at lipid rafts in the plasma membrane of quiescent cells, an action reversed by protein kinase C, ultimately inhibiting exocytosis (PubMed:23704996). During inflammation, promotes the migration and adhesion of inflammatory cells and the secretion of cytokines such as tumor necrosis factor (TNF), particularly in macrophages (PubMed:37949888). Plays an essential role in bacteria-induced intracellular reactive oxygen species (ROS) formation in the monocytic cell type. Participates in the regulation of neurite initiation and outgrowth by interacting with components of cellular machinery including CDC42 that regulates cell shape and process extension through modulation of the cytoskeleton (By similarity). Plays also a role in axon development by mediating docking and fusion of RAB10-positive vesicles with the plasma membrane (By similarity).

Storage

Shipped at conditions	Conditional Ambient
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

Species reactivity
Mouse, Rat: We have preliminary internal testing data to indicate this antibody may not react with these species. Please contact us for more information.

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.

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.

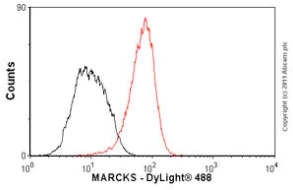
We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

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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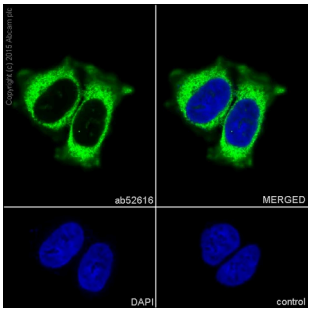
6 product images



Flow Cytometry (Intracellular) - Anti-MARCKS antibody [EP1446Y] (ab52616)

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

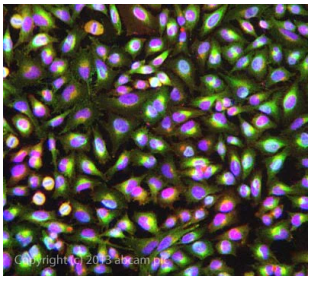
Overlay histogram showing HeLa cells stained with ab52616 (red line). The cells were fixed with 4% paraformaldehyde (10 min) and then permeabilized with 0.1% PBS-Tween for 20 min. The cells were then incubated in 1x PBS / 10% normal goat serum / 0.3M glycine to block non-specific protein-protein interactions followed by the antibody (ab52616 1/50 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/1x10^6 cells) used under the same conditions. Acquisition of >5000 events was performed. This antibody gave a positive signal in Hela cells fixed with 80% methanol (5 min)/permeabilized with 0.1% PBS-Tween for 20 min used under the same conditions.



Immunocytochemistry/ Immunofluorescence - Anti-MARCKS antibody [EP1446Y] (ab52616)

MARCKS Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-MARCKS antibody

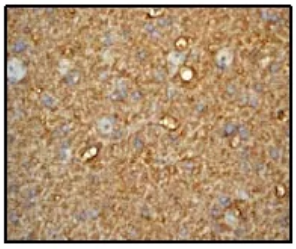
ab52616 staining MARCKS in HeLa (human cervix adenocarcinoma) cells by ICC/IF (Immunocytochemistry/immunofluorescence). Cells were fixed with 100% methanol and incubated with primary antibody at a dilution of 1/500. A goat anti rabbit IgG (Alexa Fluor® 488) (ab150077) was used as the secondary antibody at a dilution of 1/1000. DAPI was used as a nuclear counterstain.
Control: PBS only.



Immunocytochemistry/ Immunofluorescence - Anti-MARCKS antibody [EP1446Y] (ab52616)

MARCKS Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-MARCKS antibody

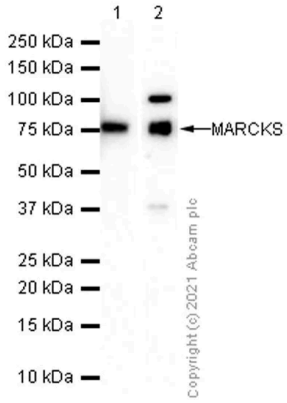
ICC/IF image of ab52616 stained HeLa cells. The cells were 4% formaldehyde fixed (10 min) and then incubated in 1%BSA / 10% normal goat serum / 0.3M glycine in 0.1% PBS-Tween for 1h to permeabilise the cells and block non-specific protein-protein interactions. The cells were then incubated with the antibody ab52616 at 1/200 dilution overnight at +4°C. The secondary antibody (green) was DyLight® 488 goat anti- rabbit (ab96899) IgG (H+L) used at a 1/250 dilution for 1h. Alexa Fluor® 594 WGA was used to label plasma membranes (red) at a 1/200 dilution for 1h. DAPI was used to stain the cell nuclei (blue) at a concentration of 1.43µM.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-MARCKS antibody [EP1446Y] (ab52616)

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

ab52616 at 1/100 dilution staining human brain tissue; paraffin embedded.
Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.



Western blot - Anti-MARCKS antibody [EP1446Y] (ab52616)

MARCKS Western blot staining using rabbit Anti-MARCKS antibody

Blocking and diluting buffer and concentration: 5% NFDM/TBST.
The molecular mass observed is consistent with what has been described in the literatures (PMID: 22619307, PMID: 8557118, PMID: 20224071).

An extra band might be detected at 100 kDa but we are unsure how to define it.

Lane 1:
Western blot - Anti-MARCKS antibody [EP1446Y] (ab52616) at 1/20000 dilution

Lane 2:
Western blot - Anti-MARCKS antibody [EP1446Y] (ab52616) at 1/1000 dilution

Lane 1:
Human brain lysate at 15 µg

Lane 2:
HeLa (Human cervix adenocarcinoma epithelial cell) whole cell lysate at 15 µg

Secondary

All lanes:
Goat Anti-Rabbit IgG (HRP) with minimal cross-reactivity with human IgG at 1/20000 dilution

Predicted band size: 32 kDa

Observed band size: 80 kDa

Exposure time: 5s

B

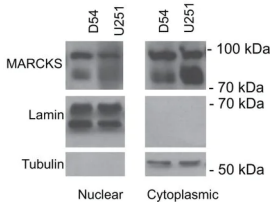


Image collected and cropped by CiteAb under a CC-BY license from the publication

Western blot - Anti-MARCKS antibody [EP1446Y] (ab52616)

MARCKS western blot using anti-MARCKS antibody [EP1446Y] ab52616. Publication image and figure legend from Rohrbach, T. D., Shah, N., et al., 2015, PLoS One, PubMed 26470026.

ab52616 was used in this publication in western blot. This may not be the same as the application(s) guaranteed by Abcam. For a full list of applications guaranteed by Abcam for ab52616 please see the product overview.

MARCKS localizes to the nucleus in D54 and U251 glioma cells.A) D54 and U251 cells were fixed and stained for MARCKS and DAPI with the merged image shown on the right side as indicated. B) D54 and U251 cell lysates were separated into nuclear and cytoplasmic fractions. The proteins were then were separated by 8% SDS-PAGE and probed for MARCKS, the cytoplasmic marker tubulin, and the nuclear marker, lamin.

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