abcam

ab284604

Anti-MX1 antibody [EPR24485-19] - BSA and Azide free

Recombinant | RabMAb | KO Validated

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.2 - 7.4 Constituents: PBS
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Carrier free	Yes
Clone number	EPR24485-19
Purification technique	Affinity purification Protein A
Concentration	1.026 - 1.043 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

ICC/IF

Tested

Species	Human
Dilution info	-

Notes	-

Not recommended

Species	Recombinant fragment - Human, Mouse, Rat
Dilution info	-
Notes	-

IP

Not recommended

Species	Human, Recombinant fragment - Human, Mouse, Rat
Dilution info	-
Notes	-

Flow Cyt

Tested

Species	Human
Dilution info	-
Notes	-

Not recommended

Species	Recombinant fragment - Human, Mouse, Rat
Dilution info	-
Notes	-

WB

Tested

Species	Recombinant fragment - Human, Human
Dilution info	-
Notes	-

Not recommended

Species	Mouse, Rat
Dilution info	-
Notes	-

IHC-P

Tested

Species	Human
Dilution info	-
Notes	-

Not recommended

Species	Mouse, Rat, Recombinant fragment - Human
Dilution info	-
Notes	-

Target data

See full target information MX1

Function Interferon-induced dynamin-like GTPase with antiviral activity against a wide range of RNA viruses and some DNA viruses. Its target viruses include negative-stranded RNA viruses and HBV through binding and inactivation of their ribonucleocapsid. May also antagonize reoviridae and asfarviridae replication. Inhibits thogoto virus (THOV) replication by preventing the nuclear import of viral nucleocapsids. Inhibits La Crosse virus (LACV) replication by sequestering viral nucleoprotein in perinuclear complexes, preventing genome amplification, budding, and egress. Inhibits influenza A virus (IAV) replication by decreasing or delaying NP synthesis and by blocking endocytic traffic of incoming virus particles. Enhances ER stress-mediated cell death after influenza virus infection. May regulate the calcium channel activity of TRPCs.

Storage

Shipped at conditions Blue Ice

Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	+4°C

Notes

ab284604 is the carrier-free version of ab284603.

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.

Conjugation ready

Our carrier-free antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. This conjugation-ready format is designed for use with fluorochromes, metal isotopes, oligonucleotides, and enzymes, which makes them ideal for antibody labelling, functional and cell-based assays, flow-based assays (e.g. mass cytometry) and Multiplex Imaging applications.

Use our conjugation kits for antibody conjugates that are ready-to-use in as little as 20 minutes with 1 minute hands-on-time and 100% antibody recovery: available for fluorescent dyes, HRP, biotin and gold.

Compatibility

This product is compatible with the Maxpar® Antibody Labeling Kit from Fluidigm, without the need for antibody preparation. Maxpar® is a trademark of Fluidigm Canada Inc.

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.

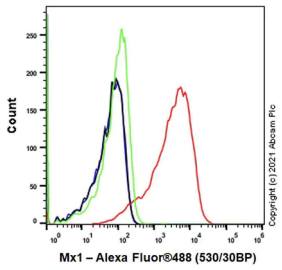
We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

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.

---

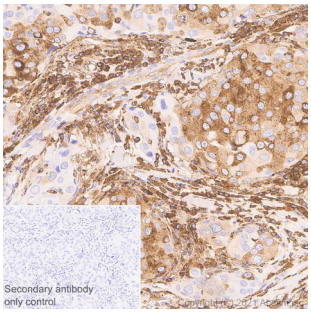
10 product images



Flow Cytometry - Anti-MX1 antibody [EPR24485-19] - BSA and Azide free (ab284604)

MX1 Flow Cytometry staining using rabbit Anti-MX1 antibody

This data was developed using ab284603, the same antibody clone in a different buffer formulation.
Flow cytometric analysis of 4% paraformaldehyde fixed 90% methanol permeabilized Daudi (Human Burkitt's lymphoma lymphoblast) cells treated with 20 U/ml IFN alpha 1 for 24 hours (Red) or untreated (Green) labelling MX1 with ab284603 at 1/500 dilution (0.1ug) compared with a Rabbit monoclonal IgG (ab172730) (Black) isotype control and an unlabelled control (cells without incubation with primary antibody and secondary antibody) (Blue). A Goat Anti-Rabbit IgG (Alexa Fluor® 488, ab150081) at 1/2000 dilution was used as the secondary antibody.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-MX1 antibody [EPR24485-19] - BSA and Azide free (ab284604)

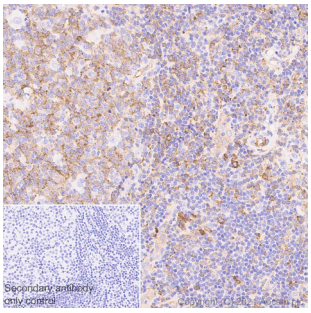
MX1 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-MX1 antibody

This data was developed using ab284603, the same antibody clone in a different buffer formulation.
Immunohistochemical analysis of paraffin-embedded Human breast cancer tissue labelling MX1 with ab284603 at 1/500 (1.09 ug/ml) dilution followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection) was used. Positive staining on human breast cancer (PMID:25838395). The section was incubated with ab284603 for 30 mins at room temperature. The immunostaining was performed on a Leica Biosystems BOND® RX instrument Counterstained with Hematoxylin.

Secondary antibody only control: Secondary antibody is a ready to use LeicaDS9800 (Bond☒ Polymer Refine Detection) was used.

Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution2) for 20 mins

---



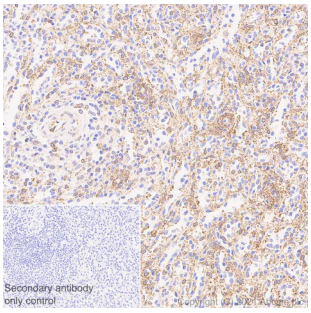
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-MX1 antibody [EPR24485-19] - BSA and Azide free (ab284604)

MX1 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-MX1 antibody

This data was developed using ab284603, the same antibody clone in a different buffer formulation.
Immunohistochemical analysis of paraffin-embedded Human tonsil tissue labelling MX1 with ab284603 at 1/500 (1.09 ug/ml) dilution followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection) was used. Positive staining on human tonsil. The section was incubated with ab284603 for 30 mins at room temperature. The immunostaining was performed on a Leica Biosystems BOND® RX instrument Counterstained with Hematoxylin.

Secondary antibody only control: Secondary antibody is a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection) was used.

Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution2) for 20 mins



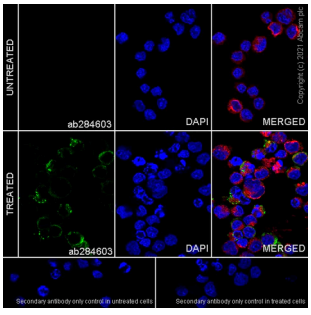
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-MX1 antibody [EPR24485-19] - BSA and Azide free (ab284604)

MX1 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-MX1 antibody

This data was developed using ab284603, the same antibody clone in a different buffer formulation.
Immunohistochemical analysis of paraffin-embedded Human spleen tissue labelling MX1 with ab284603 at 1/500 (1.09 ug/ml) dilution followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection) was used. Positive staining on human spleen. The section was incubated with ab284603 for 30 mins at room temperature.The immunostaining was performed on a Leica Biosystems BOND® RX instrument Counterstained with Hematoxylin.

Secondary antibody only control: Secondary antibody is a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection) was used.

Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution2) for 20 mins



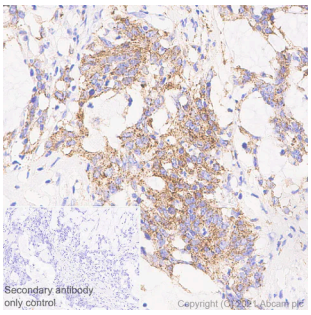
Immunocytochemistry/ Immunofluorescence - Anti-MX1 antibody [EPR24485-19] - BSA and Azide free (ab284604)

MX1 Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-MX1 antibody

This data was developed using ab284603, the same antibody clone in a different buffer formulation.
Immunofluorescent analysis of 4% Paraformaldehyde-fixed, 0.1% TritonX-100 permeabilized Daudi cells labelling MX1 with ab284603 at 1/250 (2.18 ug/ml) dilution, followed by ab150081 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed antibody at 1/1000 (2 ug/ml) dilution (Green). Confocal image showing cytoplasmic staining in Daudi cell line, the signal increased after treatment with interferon alpha 1 (20 U/ml) for 24 h. is observed. ab195889 Anti-alpha Tubulin

mouse monoclonal antibody - Microtubule Marker (Alexa Fluor® 594) was used to counterstain tubulin at 1/200 2.5ug/ml dilution (Red). The Nuclear counterstain was DAPI (Blue).

Secondary antibody only control: Secondary antibody is ab150081 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed at 1/1000 2 ug/ml dilution.



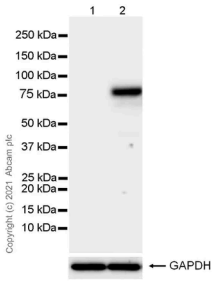
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-MX1 antibody [EPR24485-19] - BSA and Azide free (ab284604)

MX1 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-MX1 antibody

This data was developed using ab284603, the same antibody clone in a different buffer formulation.
Immunohistochemical analysis of paraffin-embedded Human colon cancer tissue labelling MX1 with ab284603 at 1/500 (1.09 ug/ml) dilution followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection) was used. Positive staining on human colon cancer (PMID:24771638). The section was incubated with ab284603 for 30 mins at room temperature. The immunostaining was performed on a Leica Biosystems BOND® RX instrument Counterstained with Hematoxylin.

Secondary antibody only control: Secondary antibody is a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection) was used.

Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution2) for 20 mins



Western blot - Anti-MX1 antibody [EPR24485-19] - BSA and Azide free (ab284604)

MX1 Western blot staining using rabbit Anti-MX1 antibody

This data was developed using ab284603, the same antibody clone in a different buffer formulation.
Blocking and diluting buffer and concentration:

15 seconds

Exposure time:

All lanes:
Western blot - Anti-MX1 antibody [EPR24485-19] (ab284603) at 1/1000 dilution

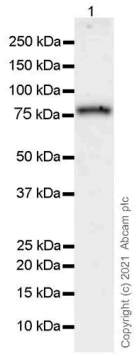
Lane 1:
Untreated Daudi (human Burkitts lymphoma lymphoblast), whole cell lysate at 20 µg

Lane 2:
Daudi treated with 20U/ml IFN alpha for 24 hours at 20 µg

Secondary

All lanes:
Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated (ab97051) at 1/100000 dilution

Predicted band size: 76 kDa



Western blot - Anti-MX1 antibody [EPR24485-19] - BSA and Azide free (ab284604)

MX1 Western blot staining of Human tonsil using rabbit Anti-MX1 antibody

Blocking and diluting buffer and concentration: 5% NFDM/TBST
Exposure time: 81 seconds

This data was developed using ab284603, the same antibody clone in a different buffer formulation.

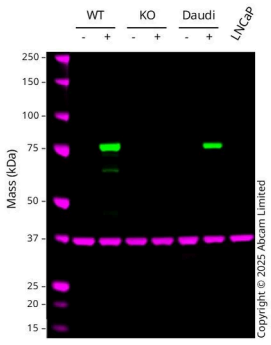
All lanes:
Western blot - Anti-MX1 antibody [EPR24485-19] (ab284603) at 1/1000 dilution

All lanes:
Human tonsil at 20 µg

Secondary

All lanes:
Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated (ab97051) at 1/100000 dilution

Predicted band size: 76 kDa



Western blot - Anti-MX1 antibody [EPR24485-19] - BSA and Azide free (ab284604)

MX1 Western blot staining using rabbit Anti-MX1 antibody

This data was developed using ab284603, the same antibody clone in a different buffer formulation.

Western blot: Rabbit Monoclonal[EPR24485-19] to MX1 ab284603 staining at 1/1000 dilution, shown in green; Mouse anti GAPDH ab8245 loading control staining at 1/20000 dilution, shown in magenta. A band was observed at 75 kDa. To generate this image, samples were run on an SDS-PAGE gel then transferred onto a nitrocellulose membrane. Membranes were blocked in 3pc Milk in TBS-0.1 % Tween® 20 (TBS-T) before incubation with primary antibodies overnight at 4 °C. Blots were washed four times in TBS-T, incubated with secondary antibodies for 1 h at room temperature, washed again four times then imaged. Secondary antibodies used were Goat anti-Rabbit 800CW and Goat anti-Mouse 680RD at 1/20,000 dilution.
All lanes:
Western blot - Anti-MX1 antibody [EPR24485-19] (ab284603) at 1/1000 dilution

Lane 1:
Wild-type A549 (Vehicle Control for IFN alpha 0ng/mL for 24h) at 20 µg

Lane 2:
Wild-type A549 (IFN alpha 10ng/mL for 24h) at 20 µg

Lane 3:
MX1 knockout A549 (Vehicle Control for IFN alpha 0ng/mL for 24h) at 20 µg

Lane 4:
MX1 knockout A549 (IFN alpha 10ng/mL for 24h) at 20 µg

Lane 5:
Daudi (Vehicle Control for IFN alpha 0ng/mL for 24h) at 20 µg

Lane 6:
Daudi (IFN alpha 10ng/mL for 24h) at 20 µg

Lane 7:
LNCaP at 20 µg

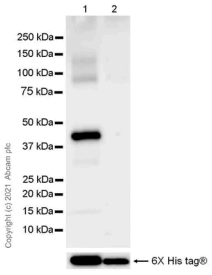
Secondary

All lanes:
Goat anti-Rabbit 800CW & Goat anti-Mouse 680RD at 1/20000 dilution

Performed under reducing conditions.

Predicted band size: 76 kDa

Observed band size: 75 kDa, 37 kDa



Western blot - Anti-MX1 antibody [EPR24485-19] - BSA and Azide free (ab284604)

This data was developed using ab284603, the same antibody clone in a different buffer formulation.
Blocking and diluting buffer and concentration: 5% NFDM/TBST

Exposure time: 15 seconds

All lanes:
Western blot - Anti-MX1 antibody [EPR24485-19] (ab284603) at 1/1000 dilution

Lane 1:
His-tagged human Interferon-induced GTP-binding protein Mx1 recombinant protein (aa37-366) at 0.01 µg

Lane 2:
His-tagged human Interferon-induced GTP-binding protein Mx2 recombinant protein (aa86-412) at 0.01 µg

Secondary

All lanes:
Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated (ab97051) at 1/100000 dilution

Predicted band size: 76 kDa

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