abcam

ab323747

Anti-IFITM2+IFITM3 antibody [EPR28942-88]

Recombinant | RabMAb | 20ul selling size

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	EPR28942-88
Purification technique	Affinity purification Protein A
Concentration	0.501 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

Flow Cyt (Intra)

Tested

Species	Transfected cell line - Human
Dilution info	1/5000
Notes	-

Species	Human

Dilution info	1/50
Notes	-

ICC/IF

Tested

Species	Human
Dilution info	1/250
Notes	-

Not recommended

Species	Transfected cell line - Human
Dilution info	-
Notes	-

WB

Tested

Species	Human
Dilution info	1/1000
Notes	-

Not recommended

Species	Transfected cell line - Human
Dilution info	-
Notes	-

Target data

See full target information IFITM2

Function IFN-induced antiviral protein which inhibits the entry of viruses to the host cell cytoplasm, permitting endocytosis, but preventing subsequent viral fusion and release of viral contents into the cytosol (PubMed:26354436, PubMed:33563656).

Active against multiple viruses, including influenza A virus, SARS coronaviruses (SARS-CoV and SARS-CoV-2), Marburg virus (MARV), Ebola virus (EBOV), Dengue virus (DNV), West Nile virus (WNV), human immunodeficiency virus type 1 (HIV-1), hepatitis C virus (HCV) and vesicular stomatitis virus (VSV) (PubMed:26354436, PubMed:33239446, PubMed:33270927, PubMed:33563656). Can inhibit: influenza virus hemagglutinin protein-mediated viral entry, MARV and EBOV GP1,2-mediated viral entry, SARS-CoV and SARS-CoV-2 S protein-mediated viral entry and VSV G protein-mediated viral entry (PubMed:33563656). Induces cell cycle arrest and mediates apoptosis by caspase activation and in p53-independent manner. In hepatocytes, IFITM proteins act in a coordinated manner to restrict HCV infection by targeting the endocytosed HCV virion for lysosomal degradation (PubMed:26354436). IFITM2 and IFITM3 display anti-HCV activity that may complement the anti-HCV activity of IFITM1 by inhibiting the late stages of HCV entry, possibly in a coordinated manner by trapping the virion in the endosomal pathway and targeting it for degradation at the lysosome (PubMed:26354436).

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.

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.

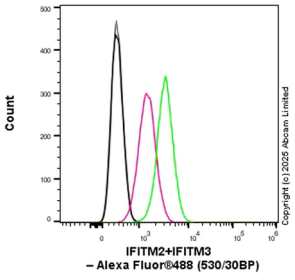
We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

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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7 product images

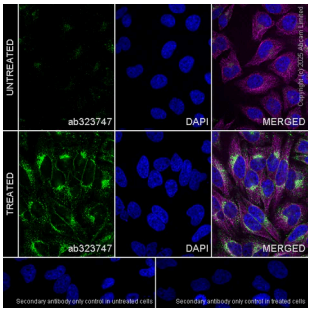


Flow Cytometry (Intracellular) - Anti-IFITM2+IFITM3 antibody [EPR28942-88] (ab323747)

IFITM2+IFITM3 Flow Cytometry (Intracellular) staining using rabbit Anti-IFITM2+IFITM3 antibody

Flow cytometric analysis of 4% paraformaldehyde fixed 90% methanol permeabilized HeLa (human cervical adenocarcinoma epithelial cell) treated with 10ng/mL IFN-alpha 1 for 16 hours (Green) / Untreated HeLa (Magenta) cells labelling IFITM2+IFITM3 with ab323747 at 1/50 dilution (1 ug) / Magenta and Green compared with a Rabbit monoclonal IgG (ab172730) (Black) and Grey isotype control and an unlabelled control (cells without incubation with primary antibody and secondary antibody).

Goat Anti-Rabbit IgG (Alexa Fluor® 488, ab150081) at 1/5000 dilution was used as the secondary antibody.



Immunocytochemistry/ Immunofluorescence - Anti-IFITM2+IFITM3 antibody [EPR28942-88] (ab323747)

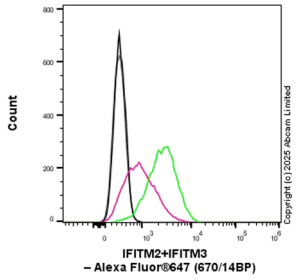
IFITM2+IFITM3 Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-IFITM2+IFITM3 antibody

Immunofluorescent analysis of 4% Paraformaldehyde-fixed, 0.1% TritonX-100 permeabilized HeLa (human cervical adenocarcinoma epithelial cell) cells labelling IFITM2+IFITM3 with ab323747 at 1/250 (2.004 ug/ml) dilution, followed by ab150081 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed antibody at 1/ 1000 2ug/ml dilution (Green).

Confocal image showing membranous and cytoplasmic staining in HeLa cell line treated with IFN alpha 1 (10ng/ml) for 16h, and weak cytoplasmic staining in HeLa cell line (shown in green). The counterstain was observed in magenta. Nuclear DNA was labelled with DAPI (shown in blue). Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).

ab195889 Anti-alpha Tubulin mouse monoclonal antibody - Microtubule Marker (Alexa Fluor® 594) was used to counterstain tubulin at 1/ 200 2.5ug/ml dilution (Magenta). 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 2ug/ml dilution.

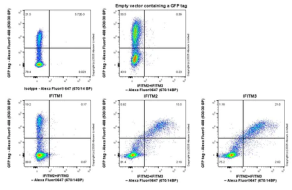


Flow Cytometry (Intracellular) - Anti-IFITM2+IFITM3 antibody [EPR28942-88] (ab323747)

IFITM2+IFITM3 Flow Cytometry (Intracellular) staining using rabbit Anti-IFITM2+IFITM3 antibody

Flow cytometric analysis of 4% paraformaldehyde fixed 90% methanol permeabilized A549 (human lung carcinoma epithelial cell) treated with 10ng/mL IFN-alpha 1 for 16 hours (Green) / Untreated A549 (Magenta) cells labelling IFITM2+IFITM3 with ab323747 at 1/50 dilution (1 ug) / Magenta and Green compared with a Rabbit monoclonal IgG (ab172730) (Black) and Grey isotype control and an unlabelled control (cells without incubation with primary antibody and secondary antibody).

Goat anti-Rabbit IgG (Alexa Fluor® 647, ab150083) at 1/5000 dilution was used as the secondary antibody.

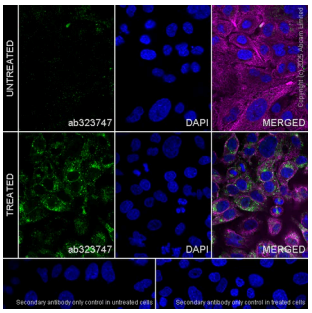


Flow Cytometry (Intracellular) - Anti-IFITM2+IFITM3 antibody [EPR28942-88] (ab323747)

IFITM2+IFITM3 Flow Cytometry (Intracellular) staining using rabbit Anti-IFITM2+IFITM3 antibody

Flow cytometric analysis of 4% paraformaldehyde fixed 90% methanol permeabilized Isotype (upper left) / 293T (human embryonic kidney epithelial cell) cells transfected with an empty expression vector containing a Myc tag (upper middle) / 293T cells transfected with a IFITM1 expression vector containing a GFP tag (down left) / 293T cells transfected with a IFITM2 expression vector containing a GFP tag (down middle) / 293T cells transfected with a IFITM3 expression vector containing a GFP tag(down right) cells labelling IFITM2+IFITM3 with ab323747 at 1/5000 dilution (0.01 ug) compared with a Rabbit monoclonal IgG (ab172730) / Left isotype control and an unlabelled control (cells without incubation with primary antibody and secondary antibody).

Goat anti-Rabbit IgG (Alexa Fluor® 647, ab150083) at 1/5000 dilution was used as the secondary antibody.



Immunocytochemistry/ Immunofluorescence - Anti-IFITM2+IFITM3 antibody [EPR28942-88] (ab323747)

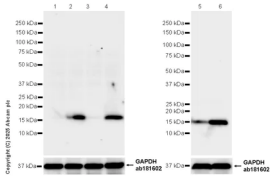
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Confocal image showing membranous and cytoplasmic staining in A549 cell line treated with IFN alpha (1000 U/ml) for 24h, and weak staining in A549 cell line (shown in green). The counterstain was observed in magenta. Nuclear DNA was labelled with DAPI (shown in blue). Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).

ab195889 Anti-alpha Tubulin mouse monoclonal antibody - Microtubule Marker (Alexa Fluor® 594) was used to counterstain tubulin at 1/ 200 2.5ug/ml dilution (Magenta). 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 2ug/ml dilution.



Western blot - Anti-IFITM2+IFITM3 antibody [EPR28942-88] (ab323747)

IFITM2+IFITM3 Western blot staining using rabbit Anti-IFITM2+IFITM3 antibody

Blocking and diluting buffer and concentration: 5% NFDM/TBST.

The expression profile/ molecular weight observed is consistent with what has been described in the literature (PMID: 34078739; PMID: 34321474; PMID: 30643282).

The expression of IFITM2 and IFITM3 is up-regulated in response to IFN alpha 1 or IFN beta treatment (PMID: 34078739; PMID: 34321474; PMID: 30643282).

In Western blot, Anti-GAPDH antibody [EPR16891] - Loading Control (ab181602) staining at 1/200000 dilution.

Exposure time: Lanes 1-4: 15 seconds; Lanes 5-6: 5 seconds

All lanes:
Western blot - Anti-IFITM2+IFITM3 antibody [EPR28942-88] (ab323747) at 1/1000 dilution

Lanes 1 and 3:
Untreated A549 (human lung carcinoma epithelial cell) whole cell lysate at 20 µg

Lane 2:
A549 treated with 1000U/ml IFN alpha 1 for 24 hours whole cell lysate at 20 µg

Lane 4:
A549 treated with 1000U/ml IFN beta 1 for 24 hours whole cell lysate at 20 µg

Lane 5:
Untreated HeLa (human cervical adenocarcinoma epithelial cell) whole cell lysate at 20 µg

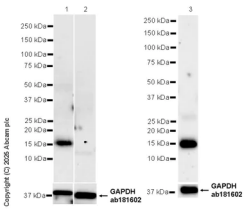
Lane 6:

HeLa treated with 10ng/ml IFN alpha 1 for 16 hours whole cell lysate at 20 µg

Secondary

All lanes:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/20000 dilution

Observed band size: 15 kDa, 36 kDa



Western blot - Anti-IFITM2+IFITM3 antibody [EPR28942-88] (ab323747)

IFITM2+IFITM3 Western blot staining using rabbit Anti-IFITM2+IFITM3 antibody

Blocking and diluting buffer and concentration: 5% NFDM/TBST.

Negative control: Daudi

The expression profile/ molecular weight observed is consistent with what has been described in the literature (PMID: 34078739; PMID: 34321474; PMID: 30643282).

Lane 3 is incubated with Goat Anti-Rabbit IgG (HRP) with minimal cross-reactivity with human IgG at 1/2000 and lanes 1-2 are incubated with Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated (ab97051) at 1/20000.

In Western blot, Anti-GAPDH antibody [EPR16891] - Loading Control (ab181602) staining at 1/200000 dilution.

All lanes:
Western blot - Anti-IFITM2+IFITM3 antibody [EPR28942-88] (ab323747) at 1/1000 dilution

Lane 1:
THP-1 (human monocytic leukemia monocyte) whole cell lysate at 20 µg

Lane 2:
Daudi (human Burkitts lymphoma lymphoblast) whole cell lysate at 20 µg

Lane 3:
Human liver tissue lysate at 20 µg

Secondary

Lanes 1 - 2:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/20000 dilution

Lane 3:
Goat Anti-Rabbit IgG (HRP) with minimal cross-reactivity with human IgG at 1/2000 dilution

Observed band size: 15 kDa, 36 kDa

Exposure time: 70s

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