abcam

ab324874

Anti-Interferon gamma antibody [EPR28352-7]

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	EPR28352-7
Purification technique	Affinity purification Protein A
Concentration	0.502 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

Flow Cyt (Intra)

Tested

Species	Mouse
Dilution info	1/5000
Notes	-

ICC/IF

Tested

Species	Mouse
Dilution info	1/250
Notes	-

WB

Tested

Species	Mouse
Dilution info	1/1000
Notes	-

IHC-P

Not recommended

Species	Mouse
Dilution info	-
Notes	-

Target data

See full target information Ifng

Function

Type II interferon produced by immune cells such as T-cells and NK cells that plays crucial roles in antimicrobial, antiviral, and antitumor responses by activating effector immune cells and enhancing antigen presentation (PubMed:11585387, PubMed:8456301). Primarily signals through the JAK-STAT pathway after interaction with its receptor IFNGR1 to affect gene regulation. Upon IFNG binding, IFNGR1 intracellular domain opens out to allow association of downstream signaling components JAK2, JAK1 and STAT1, leading to STAT1 activation, nuclear translocation and transcription of IFNG-regulated genes. Many of the induced genes are transcription factors such as IRF1 that are able to further drive regulation of a next wave of transcription. Plays a role in class I antigen presentation pathway by inducing a replacement of catalytic proteasome subunits with immunoproteasome subunits. In turn, increases the quantity, quality, and repertoire of peptides for class I MHC loading. Increases the efficiency of peptide generation also by inducing the expression of activator PA28 that associates with the proteasome and alters its proteolytic cleavage preference. Up-regulates as well MHC II complexes on the cell surface by promoting expression of several key

molecules such as cathepsins B/CTSB, H/CTSH, and L/CTSL (By similarity). Participates in the regulation of hematopoietic stem cells during development and under homeostatic conditions by affecting their development, quiescence, and differentiation (PubMed:20535209, PubMed:25078851).

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.

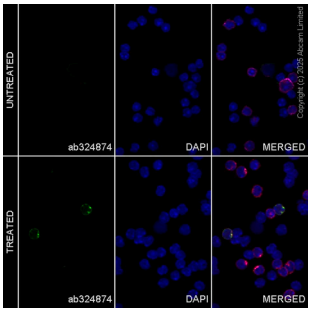
We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

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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5 product images



Immunocytochemistry/ Immunofluorescence - Anti-Interferon gamma antibody [EPR28352-7] (ab324874)

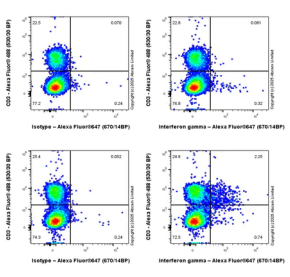
Interferon gamma Immunocytochemistry/ Immunofluorescence staining of Mouse spleenocytes using rabbit Anti-Interferon gamma antibody

Immunofluorescent analysis of 4% Paraformaldehyde-fixed, 0.1% TritonX-100 permeabilized Mouse spleenocytes cells labelling Interferon gamma with ab324874 at 1/250 (1.988 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 cytoplasmic staining in subsets of mouse splenocytes treated with Phorbol-12-myristate-13-acetate (50ng/ml) and Ionomycin (1 ug/mL) for 1hours add Brefeldin A (300ng/ml) for 3hours (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).

Anti-mouse CD3 rat monoclonal antibody (Alexa Fluor® 647) was used to counterstain tubulin at 1/100 10ug/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-Interferon gamma antibody [EPR28352-7] (ab324874)

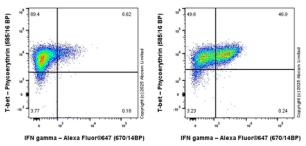
Interferon gamma Flow Cytometry (Intracellular) staining of mouse spleen cell treated with 50 ng/mL PMA for 1+3 hours and 1 ug/mL Ionomycin for 1+3 hours then add 300ng/ml BFA for 3 hours (Lower left and right) using rabbit Anti-Interferon gamma antibody

Flow cytometric analysis of 2% paraformaldehyde fixed 0.1% Tween-20 permeabilized mouse spleen cell treated with 50 ng/mL PMA for 1+3 hours and 1 ug/mL Ionomycin for 1+3 hours then add 300ng/ml BFA for 3 hours (Lower left and right) / Untreated control (Upper left and right) cells

labelling Interferon gamma with ab324874 at 1/5000 dilution (0.01ug) / Upper right and Lower right 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.

Cells were surface stained with anti-CD3 conjugated to Alexa Fluor®488. Then fixed with 2% PFA for 10 min followed by intracellularly staining with rabbit IgG or our antibody.



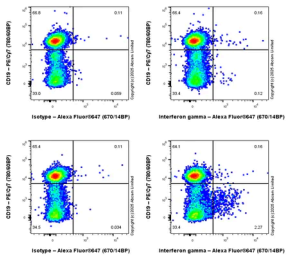
Flow Cytometry (Intracellular) - Anti-Interferon gamma antibody [EPR28352-7] (ab324874)

Interferon gamma Flow Cytometry (Intracellular) staining of Mouse PBMC Th1 differentiation for 4 days then treated with 10ng/mL PMA for 4 hours and 500ng/mL Ionomycin for 4 hours and 300ng/ml BFA for 4 hours (Right) using rabbit Anti-Interferon gamma antibody

Flow cytometric analysis of Mouse PBMC Th1 differentiation for 4 days (Left) / Mouse PBMC Th1 differentiation for 4 days then treated with 10ng/mL PMA for 4 hours and 500ng/mL Ionomycin for 4 hours and 300ng/ml BFA for 4 hours (Right) cells labelling Interferon gamma with ab324874 at 1/5000 dilution (0.01ug) / Left and Right compared with a 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.

Cells were surface-stained with Zombie Aqua to delete dead cells, then co-stained intracellularly, using True-Nuclear™ Transcription Factor Buffer Set, with anti-T-bet conjugated to PE and our antibody.



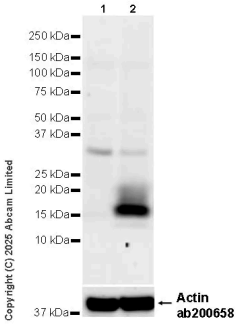
Flow Cytometry (Intracellular) - Anti-Interferon gamma antibody [EPR28352-7] (ab324874)

Interferon gamma Flow Cytometry (Intracellular) staining of mouse spleen cell treated with 50 ng/mL PMA for 1+3 hours and 1 ug/mL Ionomycin for 1+3 hours then add 300ng/ml BFA for 3 hours (Lower left and right) using rabbit Anti-Interferon gamma antibody

Flow cytometric analysis of 2% paraformaldehyde fixed 0.1% Tween-20 permeabilized mouse spleen cell treated with 50 ng/mL PMA for 1+3 hours and 1 ug/mL Ionomycin for 1+3 hours then add 300ng/ml BFA for 3 hours (Lower left and right) / Untreated control (Upper left and right) cells labelling Interferon gamma with ab324874 at 1/5000 dilution (0.01ug) / Upper right and Lower right 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.

Cells were surface stained with anti-CD19 conjugated to PE/CY7. Then fixed with 2% PFA for 10 min followed by intracellularly staining with rabbit IgG or our antibody.



Western blot - Anti-Interferon gamma antibody [EPR28352-7] (ab324874)

Interferon gamma Western blot staining using rabbit Anti-Interferon gamma 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:23129404; PMID: 11033016; PMID: 35092032; PMID: 26018190)

The identity of the bands higher than 25 kDa are unknown.

In Western blot, Anti-Actin antibody [EPR16875] - Loading Control (ab200658) staining at 1/10000 dilution.

All lanes:
Western blot - Anti-Interferon gamma antibody [EPR28352-7] (ab324874) at 1/1000 dilution

Lane 1:
Untreated mouse spleen cell whole cell lysate at 20 µg

Lane 2:
Mouse spleen cell treated with 50 ng/ml Phorbol-12-myristate-13-acetate (PMA) and 1 µg/ml Ionomycin for 1 hour then add 300ng/ml Brefeldin A for additional 3 hours

Secondary

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

Observed band size: 17 kDa, 42 kDa

Exposure time: 15s

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