abcam

ab322926

Anti-Interferon gamma antibody [RM1245]

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	Multiclonal
Immunogens	The exact immunogen used to generate this antibody is proprietary information.
Clone number	RM1245
Purification technique	Affinity purification Protein A
Concentration	0.499 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

I-ELISA

Tested

Species	Recombinant fragment - Human
Dilution info	250 ng/mL
Notes	-

Expected

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

Not recommended

Species	Mouse, Rat
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	1/500
Notes	-

Not recommended

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

WB

Tested

Species	Human
Dilution info	1/1000
Notes	-

Not recommended

Species	Mouse, Rat, Recombinant fragment - Human

Dilution info	-
Notes	-

ICC/IF

Tested

Species	Human
Dilution info	1/50
Notes	-

Not recommended

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

IP

Tested

Species	Human
Dilution info	1/30
Notes	-

Not recommended

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

IHC-P

Not recommended

Species	Human, Mouse, Rat, Recombinant fragment - Human
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:16914093, PubMed:8666937). Primarily signals through the JAK-STAT pathway after interaction with its receptor IFNGR1 to affect gene regulation (PubMed:8349687). 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 (PubMed:16914093). Plays a role in class I antigen presentation pathway by inducing a replacement of catalytic proteasome subunits with immunoproteasome subunits (PubMed:8666937). In turn, increases the quantity, quality, and repertoire of peptides for class I MHC loading (PubMed:8163024). 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 (PubMed:11112687). 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 (PubMed:7729559). Participates in the regulation of hematopoietic stem cells during development and under homeostatic conditions by affecting their development, quiescence, and differentiation (By similarity).

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

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 recombinant multiclonals?
Recombinant multiclonals are a mixture of recombinant antibodies co-expressed from a library of heavy and light chains. They offer several advantages including:

- The sensitivity of polyclonal antibodies by recognising multiple epitopes
- High batch-to-batch consistency and reproducibility
- Improved sensitivity and specificity
- Long-term security of supply
- Animal-free batch production

View our range of recombinant multiclonal 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

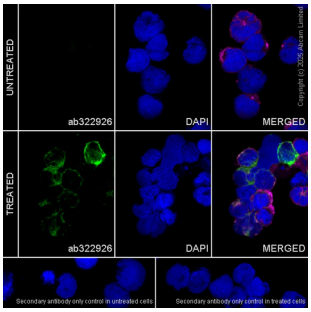
We do not recommend this combination. It is not covered by our product promise.

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.

7 product images



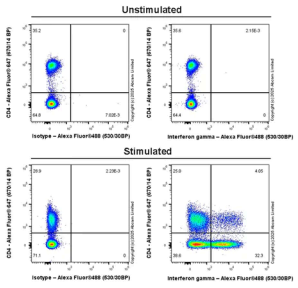
Immunocytochemistry/ Immunofluorescence - Anti-Interferon gamma antibody [RM1245] (ab322926)

Immunofluorescent analysis of 4% Paraformaldehyde-fixed, 0.1% TritonX-100 permeabilized No-GFP-CD16.NK-92 (CD16 ectopically expressed natural killer(NK-92®) cell with no GFP tag) cells labelling Interferon gamma with ab322926 at 1/50 (9.98 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 and membranous staining in No-GFP-CD16.NK-92 cell line treated with Phorbol-12-myristate-13-acetate (80nM) and Ionomycin(3uM) for 5 hours, then add Brefeldin A (300ng/ml) for 4 hours (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.



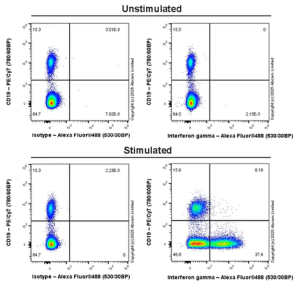
Flow Cytometry - Anti-Interferon gamma antibody [RM1245] (ab322926)

Interferon gamma Flow Cytometry staining using rabbit Anti-Interferon gamma antibody

Flow cytometric analysis of 0.1% Tween-20 permeabilized, 2% paraformaldehyde-fixed Human PBMC (human peripheral blood mononuclear cell). Cell stimulation was performed with cell stimulation cocktail for 6 hours (bottom) compared to unstimulated cells (top). Interferon gamma was labeled with ab322926 at 1/2500 dilution compared with an Isotype control, Rabbit monoclonal IgG (ab172730) (left).

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

Human PBMC were co-stained with CD4 conjugated to Alexa Fluor®647



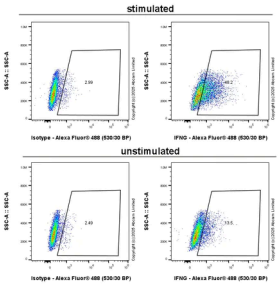
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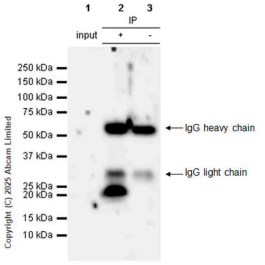
Human PBMC were co-stained with CD19 conjugated to PE/Cy7.



Flow Cytometry (Intracellular) - Anti-Interferon gamma antibody [RM1245] (ab322926)

Flow cytometric analysis of 4% paraformaldehyde fixed 90% methanol permeabilized No-GFP-CD16.NK-92 (CD16 ectopically expressed natural killer(NK-92®) cell with no GFP tag) stimulated with 80nM TPA and 3uM Ionomycin for 5 hours then add 300ng/mL BFA for 4 hours(Upper left and right) / No-GFP-CD16.NK-92 unstimulated cell (Lower left and right) cells labelling Interferon gamma with ab322926 at 1/500 dilution (0.1ug) compared with a Rabbit monoclonal IgG (ab172730) / Left isotype control.

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



Immunoprecipitation - Anti-Interferon gamma antibody [RM1245] (ab322926)

Interferon gamma was immunoprecipitated from 0.35 mg No-GFP-CD16.NK-92 treated with 80nM PMA(TPA) (ab120297) and 3uM Ionomycin (ab120116) for 5 hours, 300ng/ml BFA was added for last 4 hours whole cell lysate with ab322926 at 1/30 dilution (2ug in 0.35mg lysates). Western blot was performed on the immunoprecipitate using ab322926 at 1/1000 dilution. VeriBlot for IP secondary antibody(HRP)(ab131366) was used at 1/5000 dilution.

Lane 1: No-GFP-CD16.NK-92 treated with 80nM PMA(TPA) (ab120297) and 3uM Ionomycin (ab120116) for 5 hours, 300ng/ml BFA was added for last 4 hours whole cell lysate
Lane 2: ab322926 IP in No-GFP-CD16.NK-92 treated with 80nM PMA(TPA) (ab120297) and 3uM Ionomycin (ab120116) for 5 hours, 300ng/ml BFA was added for last 4 hours whole cell lysate
Lane 3: Rabbit monoclonal IgG (ab172730) instead of ab322926 in No-GFP-CD16.NK-92 treated with 80nM PMA(TPA) (ab120297) and 3uM Ionomycin (ab120116) for 5 hours, 300ng/ml BFA was added for last 4 hours whole cell lysate

Blocking and dilution buffer and concentration: 5% NFDM/TBST

This blot was developed using a high-sensitivity ECL substrate, allowing for the detection of proteins in the mid-femtogram range.

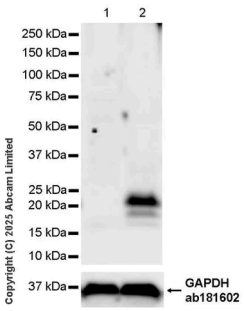
All lanes:
Immunoprecipitation - Anti-Interferon gamma antibody [RM1245] (ab322926) at 1/30 dilution

All lanes:
No-GFP-CD16.NK-92 treated with 80nM PMA(TPA) (ab120297) and 3uM Ionomycin (ab120116) for 5 hours, 300ng/ml BFA was added for last 4 hours whole cell lysate

Secondary

All lanes:
Immunoprecipitation - VeriBlot for IP Detection Reagent (HRP) (ab131366) at 1/5000 dilution

Exposure time: 111s



Western blot - Anti-Interferon gamma antibody [RM1245] (ab322926)

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 and PMID: 6423641).

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

All lanes:
Western blot - Anti-Interferon gamma antibody [RM1245] (ab322926) at 1/1000 dilution

Lane 1:
Untreated No-GFP-CD16.NK-92 (CD16 ectopically expressed natural killer(NK-92®) cell with no GFP tag) whole cell lysate at 20 µg

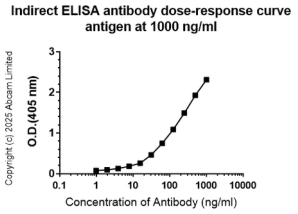
Lane 2:
No-GFP-CD16.NK-92 treated with 80nM PMA(TPA) (ab120297) and 3uM Ionomycin (ab120116) for 5 hours, 300 ng/ml BFA was added for last 4 hours whole cell lysate at 20 µg

Secondary

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

Observed band size: 17 kDa, 19 kDa, 23 kDa, 36 kDa

Exposure time: 92s



Indirect ELISA - Anti-Interferon gamma antibody [RM1245] (ab322926)

Indirect ELISA analysis of ab322926 at 1000-0 ng/ml. The Secondary antibody used was Alkaline Phosphatase-conjugated AffiniPure Goat Anti-Rabbit IgG (H+L) at 1:2500 dilution dilution.

Antigen: Human IFNG.

Antigen concentration: 1000 ng/ml

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