abcam

ab224197

Anti-IFN gamma Receptor beta/AF-1 antibody [EPR22171]

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	EPR22171
Purification technique	Affinity purification Protein A
Concentration	0.399 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

Flow Cyt

Tested

Species	Human
Dilution info	1/400
Notes	-

Not recommended

Species	Mouse, Recombinant full length protein - Human
Dilution info	-
Notes	-

ELISA

Tested

Species	Recombinant full length protein - Human
Dilution info	-
Notes	-

Expected

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

Not recommended

Species	Mouse
Dilution info	-
Notes	-

ICC/IF

Tested

Species	Human
Dilution info	1/500
Notes	-

Not recommended

Species	Mouse, Recombinant full length protein - Human
Dilution info	-
Notes	-

Target data

See full target information IFNGR2

Function	Associates with IFNGR1 to form a receptor for the cytokine interferon gamma (IFNG) (PubMed:7615558, PubMed:7673114, PubMed:8124716). Ligand binding stimulates activation of the JAK/STAT signaling pathway (PubMed:15356148, PubMed:7673114, PubMed:8124716). Required for signal transduction in contrast to other receptor subunit responsible for ligand binding (PubMed:7673114).

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.

Supplementary info

This supplementary information is collated from multiple sources and compiled automatically.

Activity summary	The IFN gamma Receptor beta also known as IFN-γ receptor β chain or IFN gamma receptor AF-1 plays a significant role in the immune response. This receptor is part of the interferon gamma receptor complex which binds the cytokine IFN-gamma. The beta chain contributes to the formation of the receptor complex that allows functional IFN-gamma signaling. Typically the receptor is expressed on the surface of immune cells like lymphocytes and macrophages facilitating communication and response to infections and immune challenges. The exact molecular mass can vary depending on glycosylation often giving an approximate mass of 35-50 kDa.
Biological function summary	IFN gamma Receptor beta is essential for the activation of the immune system. It partners with IFN gamma Receptor alpha in the receptor complex to mediate important biological effects such as activation of macrophages and enhancement of antigen presentation. This activity boosts the cellular immune response allowing cells to better combat microbial infections and tumor growth. Without functional receptor activity cells would not effectively respond to IFN-gamma signals impeding proper immune function.
Pathways	IFN gamma Receptor beta is involved in the JAK-STAT signaling pathway which is important for mediating IFN-gamma signaling. Once IFN-gamma binds to its receptor including the beta chain it triggers the activation of JAK kinases which in turn phosphorylates STAT1. Phosphorylated STAT1 dimerizes translocates to the nucleus and influences the expression of immune regulatory genes. This pathway connects the receptor with key immune regulatory proteins playing an important role in the immune response.
Associated diseases and disorders	IFN gamma Receptor beta is associated with conditions such as chronic granulomatous disease and various mycobacterial infections. These conditions often result from immune system malfunctions where the receptor cannot properly signal IFN-gamma activity leading to an impaired defense against pathogens. The involvement of the receptor in immune pathways links it to other critical proteins like IFN gamma Receptor alpha and STAT1 both of which might be implicated in IFN-gamma-related dysfunctions contributing to these diseases.

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.

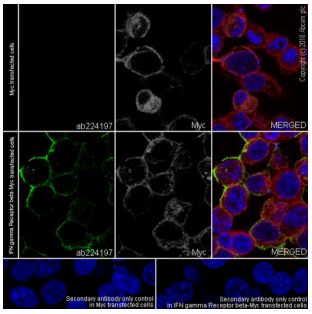
We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

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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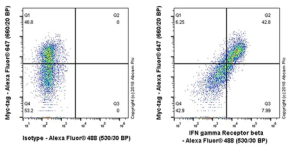
3 product images



Immunocytochemistry/ Immunofluorescence - Anti-IFN gamma Receptor beta/AF-1 antibody [EPR22171] (ab224197)

IFN gamma Receptor beta/AF-1 Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-IFN gamma Receptor beta/AF-1 antibody

Immunofluorescent analysis of 4% paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized HEK-293T (human embryonic kidney epithelial cell) cells transfected with a Myc-tagged IFN gamma Receptor beta/AF-1 expression construct labeling IFN gamma Receptor beta/AF-1 with ab224197 at 1/500 dilution, followed by Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) (ab150077) secondary antibody at 1/1000 dilution (green). Confocal image showing positive staining in HEK-293T cells transfected with a Myc-tagged IFN gamma Receptor beta/AF-1 expression construct. The nuclear counterstain is DAPI (blue).
Counterstained with ab195889 Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594) at a 1/200 dilution (red) and Myc-Tag (9B11) Mouse mAb (Alexa Fluor® 647 Conjugate) (white).
The negative control is the secondary antibody only.



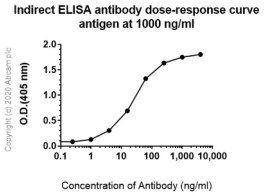
Flow Cytometry - Anti-IFN gamma Receptor beta/AF-1 antibody [EPR22171] (ab224197)

IFN gamma Receptor beta/AF-1 Flow Cytometry staining using rabbit Anti-IFN gamma Receptor beta/AF-1 antibody

Flow cytometric analysis of HEK-293T (human embryonic kidney epithelial cell) transfected with a Myc-tagged IFN gamma Receptor beta/AF-1 expression construct cell line labeling IFN gamma Receptor beta/AF-1 with ab224197 at 1/400 dilution.
Goat anti rabbit IgG (Alexa Fluor® 488, ab150077), at 1/2000 dilution was used as the secondary antibody.

Cells were surface stained with isotype control Rabbit monoclonal IgG (ab172730) (Left panel) or IFN gamma Receptor beta/AF-1 (Right panel), then co-stained with Alexa Fluor® 647 conjugated-Myc-tag antibody.

Gated on viable cells.



ELISA - Anti-IFN gamma Receptor beta/AF-1 antibody [EPR22171] (ab224197)

ELISA analysis of Human IFNGR2 recombinant protein at 1000 ng/mL with ab224197. An Alkaline Phosphatase-conjugated AffiniPure Goat Anti-Rabbit IgG (H+L) at 1/2500 dilution was used as the secondary antibody.

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