abcam

ab275700

APC Anti-IFNGR1 antibody [062]

Recombinant

Key facts

Isotype	IgG
Host species	Rabbit
Conjugation	APC
Excitation/Emission	Ex: 650nm, Em: 660nm
Storage buffer	Preservative: 0.09% Sodium azide Constituents: 0.5% BSA
Form	Liquid
Clonality	Monoclonal
Immunogen	Recombinant Fragment Protein within Mouse Ifngr1 aa 1-300. The exact immunogen used to generate this antibody is proprietary information. Database link P15261
Clone number	062
Purification technique	Affinity purification Protein A
Concentration	0.1 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

Flow Cyt

Tested

Species	Mouse

Dilution info	-
Notes	10 µl/Test

Target data

See full target information Ifngr1

Function	Receptor subunit for interferon gamma/INFG that plays crucial roles in antimicrobial, antiviral, and antitumor responses by activating effector immune cells and enhancing antigen presentation (, PubMed:20926559, PubMed:27286456). Associates with transmembrane accessory factor IFNGR2 to form a functional receptor (PubMed:2137461, PubMed:2530216, PubMed:2530582, PubMed:2531896, PubMed:2532365). Upon ligand binding, the intracellular domain of IFNGR1 opens out to allow association of downstream signaling components JAK1 and JAK2. In turn, activated JAK1 phosphorylates IFNGR1 to form a docking site for STAT1. Subsequent phosphorylation of STAT1 leads to its dimerization, translocation to the nucleus, and stimulation of target gene transcription (PubMed:19889125). STAT3 can also be activated in a similar manner although activation seems weaker (PubMed:15284232). IFNGR1 intracellular domain phosphorylation also provides a docking site for SOCS1 that regulates the JAK-STAT pathway by competing with STAT1 binding to IFNGR1 (PubMed:15522878).

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	+4°C
Storage information	Do Not Freeze, Store in the dark

Supplementary info

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

Activity summary	The IFNGR1 protein also known as Interferon Gamma Receptor 1 is an integral component of the cell surface receptor for interferon-gamma (IFN-γ). It possesses a mass of approximately 53 kDa. IFNGR1 is expressed in various cell types including immune cells such as T cells and macrophages and is also present in other cell lines like HEK 293. This receptor binds to its specific ligand IFN-γ initiating a series of intracellular events that are essential for immune response modulation.

Biological function summary	IFNGR1 functions as part of the interferon-gamma receptor complex working alongside the IFNGR2 subunit. This interaction with IFNGR2 is important for the receptor to properly transmit signals inside the cell. The binding of interferon-gamma to this receptor complex activates the JAK-STAT signaling pathway promoting the transcription of genes that enhance the antimicrobial activity of immune cells and regulate cellular immunity.
Pathways	The IFNGR1 protein plays an important role in the JAK-STAT signaling pathway which is critical for mediating responses to interferon-gamma. Upon activation by IFN-γ IFNGR1 recruits JAK kinases leading to the phosphorylation of STAT1 a significant transcription factor. STAT1 then dimerizes and translocates to the nucleus where it induces the expression of genes involved in immune defense and inflammation. This process is vital for the body's ability to handle infections and other immunological challenges.
Associated diseases and disorders	IFNGR1 is associated with susceptibility to infections and certain immune-related disorders. Mutations or deficiencies in IFNGR1 can lead to Mendelian Susceptibility to Mycobacterial Disease (MSMD) where individuals show increased vulnerability to mycobacterial infections. Additionally improper signaling through IFNGR1 is linked to chronic granulomatous disease which can involve defective functioning of the NADPH oxidase complex. Understanding IFNGR1's function and interactions is important for exploring new therapeutic strategies for these disorders.

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

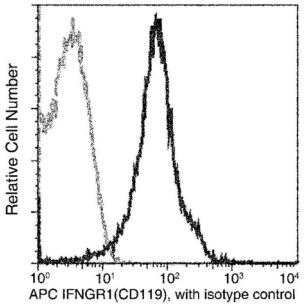
We do not recommend this combination. It is not covered by our product promise.

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.

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1 product image



Flow Cytometry - APC Anti-IFNGR1 antibody [062] (ab275700)

IFNGR1 Flow Cytometry staining using rabbit Anti-IFNGR1 antibody

Flow cytometric analysis of mouse BABL/c splenocytes labeling IFNGR1 with ab275700 at 10 µl/Test (Black) compared with isotype control (Grey). The histogram were derived from gated events with the forward and side light-scatter characteristics of intact cells.

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