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Anti-IFNGR1 Picoband Antibody

Catalog # ABO10207

Product Information

Application	WB, IHC-F, FC, ICC
Primary Accession	P15260
Host	Rabbit
Reactivity	Human
Clonality	Polyclonal
Format	Lyophilized
Description	Rabbit IgG polyclonal antibody for Interferon gamma receptor 1(IFNGR1) detection. Tested with WB, IHC-F, ICC, FCM in Human.
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Additional Information

Gene ID	3459
Other Names	Interferon gamma receptor 1 {ECO:0000312|HGNC:HGNC:5439}, IFN-gamma receptor 1, IFN-gamma-R1, CDw119, Interferon gamma receptor alpha-chain, IFN-gamma-R-alpha, CD119, IFNGR1 (HGNC:5439)
Calculated MW	54405
Application Details	Immunohistochemistry(Frozen Section), 0.5-1 □g/ml Immunocytochemistry, 0.5-1 □g/ml Western blot, 0.1-0.5 □g/ml Flow Cytometry, 1-3 □¼g/1x10^6 cells
Subcellular Localization	Cell membrane ; Single-pass type I membrane protein .
Source	Eukaryota
Protein Name	Interferon gamma receptor 1
Contents	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.
Immunogen	A synthetic peptide corresponding to a sequence at the C-terminus of human IFNGR1 (443-484aa QELITVIKAPTSFGYDKPHVLVDLLVDDSGKESLIGYRPTED), different from the related mouse sequence by seventeen amino acids.
Purification	Immunogen affinity purified.
Cross Reactivity	No cross reactivity with other proteins.

Storage	At -20˚C for one year. After r˚Constitution, at 4˚C for one month. It˚Can also be aliquotted and stored frozen at -20˚C for a longer time.Avoid repeated freezing and thawing.

Protein Information

Name	IFNGR1 (HGNC:5439)
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:20015550). Associates with transmembrane accessory factor IFNGR2 to form a functional receptor (PubMed:10986460, PubMed:2971451, PubMed:7615558, PubMed:7617032, PubMed:7673114). 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 dimerization, translocation to the nucleus, and stimulation of target gene transcription (PubMed:28883123). STAT3 can also be activated in a similar manner although activation seems weaker. IFNGR1 intracellular domain phosphorylation also provides a docking site for SOCS1 that regulates the JAK-STAT pathway by competing with STAT1 binding to IFNGR1 (By similarity).
Cellular Location	Cell membrane; Single-pass type I membrane protein

Background

Interferon gamma receptor 1 (IFNGR1), also known as CD119 (Cluster of Differentiation 119), is a protein that in humans is encoded by the IFNGR1 gene. This gene (IFNGR1) encodes the ligand-binding chain (alpha) of the gamma interferon receptor. Human interferon-gamma receptor is a heterodimer of IFNGR1 and IFNGR2. A genetic variation in IFNGR1 is associated with susceptibility to Helicobacter pylori infection. In addition, defects in IFNGR1 are a cause of mendelian susceptibility to mycobacterial disease, also known as familial disseminated atypical mycobacterial infection.

Images

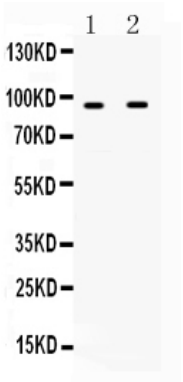


Figure 1. Western blot analysis of IFNGR1 using anti-IFNGR1 antibody (ABO10207). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50ug of sample under reducing conditions. lane 1: HEPG2 whole cell lysates,lane 2: SKOV3 whole cell lysates. After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA for 50-90 minutes. Blocked the membrane with 5% Non-fat Milk/ TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-IFNGR1 antigen affinity purified polyclonal antibody (Catalog # ABO10207) at 0.5 □¼g/mL overnight at 4 □°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:10000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit with Tanon 5200 system. A specific band was detected for IFNGR1 at approximately 95KD. The expected band size for IFNGR1 is at 54KD.

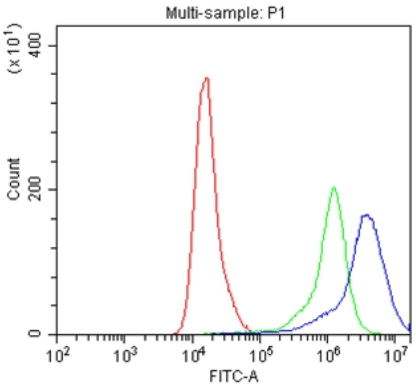


Figure 2. Flow Cytometry analysis of A549 cells using anti-IFNGR1 antibody (ABO10207).Overlay histogram showing A549 cells stained with ABO10207 (Blue line).The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-IFNGR1 Antibody (ABO10207,1 □¼g/1x106 cells) for 30 min at 20 □°C. DyLight?488 conjugated goat anti-rabbit IgG (BA1127, 5-10 □¼g/1x106 cells) was used as secondary antibody for 30 minutes at 20 □°C. Isotype control antibody (Green line) was rabbit IgG (1 □¼g/1x106) used under the same conditions. Unlabelled sample (Red line) was also used as a control.

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