

# Anti-IFNGR1 Picoband Antibody

Catalog # ABO10208

#### Specification

### Anti-IFNGR1 Picoband Antibody - Product Information

Application	WB
Primary Accession	<u>P15260</u>
Host	Rabbit
Reactivity	Human
Clonality	Polyclonal
Format	Lyophilized
Description	
Rabbit IgG polyclonal antibody for	Interferon gamma receptor 1(IFN
M/D in the second	

Rabbit IgG polyclonal antibody for Interferon gamma receptor 1(IFNGR1) detection. Tested with WB in Human.

**Reconstitution** Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

### Anti-IFNGR1 Picoband Antibody - 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 (<a href="http://www.genenames.org/cgi-bin/gene\_symbol\_report?hgnc\_id=5439" target="\_blank">HGNC:5439</a>)

Calculated MW 54405 MW KDa

**Application Details** Western blot, 0.1-0.5 μg/ml, Human<br>

Subcellular Localization Cell membrane ; Single-pass type I membrane protein .

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 N-terminus of human IFNGR1 (108-147aa QKESAYAKSEEFAVCRDGKIGPPKLDIRKEEKQIMIDIFH), different from the related mouse sequence by eighteen 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.

# Anti-IFNGR1 Picoband Antibody - 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:<a href="http://www.uniprot.org/citations/20015550" target=" blank">20015550</a>). Associates with transmembrane accessory factor IFNGR2 to form a functional receptor (PubMed:<a href="http://www.uniprot.org/citations/10986460" target=" blank">10986460</a>, PubMed:<a href="http://www.uniprot.org/citations/2971451" target="\_blank">2971451</a>, PubMed:<a href="http://www.uniprot.org/citations/7615558" target="\_blank">7615558</a>, PubMed: <a href="http://www.uniprot.org/citations/7617032" target=" blank">7617032</a>, PubMed:<a href="http://www.uniprot.org/citations/7673114" target=" blank">7673114</a>). 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:<a href="http://www.uniprot.org/citations/28883123" target="\_blank">28883123</a>). 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 IAK-STAT pathway by competing with STAT1 binding to IFNGR1 (By similarity).

**Cellular Location** 

Cell membrane; Single-pass type I membrane protein

#### **Anti-IFNGR1 Picoband Antibody - Protocols**

Provided below are standard protocols that you may find useful for product applications.

- <u>Western Blot</u>
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- <u>Cell Culture</u>

**Anti-IFNGR1 Picoband Antibody - Images** 





Figure 1. Western blot analysis of IFNGR1 using anti-IFNGR1 antibody (ABO10208). 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. 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 # ABO10208) at 0.5 Î<sup>1</sup>/<sub>4</sub>g/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.

# Anti-IFNGR1 Picoband Antibody - 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.