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# Anti-IFN gamma Antibody

Catalog # ABO12687

## Product Information

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| **Application** | WB, IHC-P, E |
| **Primary Accession** | P01579 |
| **Host** | Rabbit |
| **Reactivity** | Human |
| **Clonality** | Polyclonal |
| **Format** | Lyophilized |
| **Description** | Rabbit IgG polyclonal antibody for Interferon gamma(IFNG) detection. Tested with WB, IHC-P, ELISA in Human. |
| **Reconstitution** | Add 0.2ml of distilled water will yield a concentration of 500ug/ml. |

## Additional Information

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| **Gene ID** | 3458 |
| **Other Names** | Interferon gamma, IFN-gamma, Immune interferon, IFNG |
| **Calculated MW** | 19348 |
| **Application Details** | Immunohistochemistry(Paraffin-embedded Section), 0.5-1 □g/ml, Human, By Heat<br><br>ELISA , 0.1-0.5 □g/ml, Human, -<br>Western blot, 0.1-0.5 □g/ml, Human |
| **Subcellular Localization** | Secreted. |
| **Tissue Specificity** | Released primarily from activated T lymphocytes. |
| **Source** | Eukaryota |
| **Protein Name** | Interferon gamma(IFN-gamma) |
| **Contents** | Each vial contains 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3. Carrier free (No BSA) form available in stock. If you want this antibody carrier free please specify Carrier Free" or "No BSA" in your order note. " |
| **Immunogen** | E. coli-derived human IFN gamma recombinant protein(Position: Q24-Q166). |
| **Purification** | Immunogen affinity purified. |
| **Cross Reactivity** | No cross reactivity with other proteins |

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| **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. |
| **Sequence Similarities** | Belongs to the type II (or gamma) interferon family. |

## Protein Information

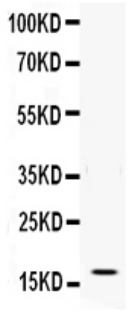
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| **Name** | IFNG |
| **Function** | Type II interferon produced by immune cells such as T-cells and NK cells that plays crucial roles in antimicrobial, antiviral, and antitumor responses by activating effector immune cells and enhancing antigen presentation (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). |
| **Cellular Location** | Secreted. |
| **Tissue Location** | Released primarily from activated T lymphocytes. |

## Background

Interferon-gamma(IFN-gamma) is an inflammatory cytokine that has been implicated in the development of fibrosis in inflamed tissues. The production of IFN-gamma, which is under genetic control, can influence the development of fibrosis in lung allografts. IFN-gamma is also produced by natural killer(NK) cells and most prominently by CD8 cytotoxic T cells, and is vital for the control of microbial pathogens. Interferon gamma is believed to be crucial for host defence against many infections. Genetically determined variability in IFN-gamma and expression might be important for the development of tuberculosis. IFN-gamma activates human macrophage oxidative metabolism and antimicrobial activity. In addition to having antiviral activity, IFN-gamma has important immunoregulatory functions. IFN-gamma plays an important role in the control of neointima proliferation.

## Images

Figure . Western blot analysis of IFN gamma using anti-IFN gamma antibody (ABO12687). 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: Recombinant Human IFN gamma Protein 0.5ng 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- IFN gamma antigen affinity purified polyclonal antibody (Catalog # ABO12687) 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 IFN gamma at approximately 17KD. The expected band size for IFN gamma is at 17KD.

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