

# Interferon gamma Antibody

Rabbit mAb Catalog # AP91102

### **Product Information**

**Application** WB, IF, FC, ICC

Primary Accession P01579

Reactivity Rat, Human, Mouse

**Clonality** Monoclonal

Other Names IFG; IFI; IFN gamma; IFN, immune; IFN-gamma; IFNG; Immune interferon;

Interferon gamma;

IsotypeRabbit IgGHostRabbitCalculated MW19348

#### **Additional Information**

**Dilution** WB 1:500~1:2000 ICC/IF 1:50~1:200 FC 1:50

**Purification** Affinity-chromatography

ImmunogenA synthesized peptide derived from human Interferon gammaDescriptionInterferon (IFN)-y is an antiviral and antiparasitic agent produced by

CD4+/CD8+ lymphocytes and natural killer cells that undergo activation by antigens, mitogens or alloantigens. It is a potent activator of macrophages, it has antiproliferative effects on transformed cells and it can potentiate the

antiviral and antitumor effects of the type I interferons.

Storage Condition and Buffer Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium

azide and 50% glycerol. Store at +4°C short term. Store at -20°C long term.

Avoid freeze / thaw cycle.

#### **Protein Information**

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).

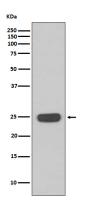
**Cellular Location** 

Secreted.

**Tissue Location** 

Released primarily from activated T lymphocytes.

## **Images**



Western blot analysis of Interferon gamma expression in Jurkat cell lysate.

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