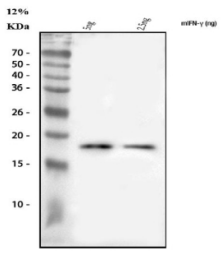
Ifng Antibody / Ifn gamma (FY12212)

Catalog No.	Formulation	Size
FY12212	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml	100 ug

Bulk quote request

Availability	1-2 days
Species Reactivity	Mouse
Format	Lyophilized
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Immunogen affinity purified
Buffer	Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na2HPO4.
UniProt	P01580
Applications	Western Blot : 0.25-0.5ug/ml ELISA : 0.1-0.5ug/ml
Limitations	This Ifng antibody is available for research use only.



Western blot analysis of IFN Gamma/Ifng using anti-Ifng antibody. Lane 1: recombinant mouse Ifng protein 5 ng, Lane 1: recombinant mouse Ifng protein 2.5 ng. After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA 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-Ifng antibody at 0.5 ug/ml overnight at 4oC, 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 1:5000 for 1.5 hour at RT. The signal was developed using enhanced chemiluminescent.

Description

IFNG antibody detects Interferon gamma, encoded by the IFNG gene on chromosome 12q15. IFNG antibody is widely used in immunology research to study cytokine biology, host defense, and inflammation. Interferon gamma (IFN g) is a type II interferon produced primarily by activated T lymphocytes and natural killer (NK) cells. It functions as a pleiotropic cytokine coordinating innate and adaptive immune responses. IFN g induces expression of hundreds of genes involved in antigen presentation, macrophage activation, and antiviral defense.

Structurally, IFN g is a homodimeric glycoprotein of ~17 kDa per subunit, belonging to the class II cytokine family. It signals through the interferon gamma receptor (IFNGR1/IFNGR2 complex), activating the JAK-STAT pathway. STAT1 phosphorylation leads to transcription of interferon-stimulated genes that mediate antimicrobial and immune regulatory functions.

Functionally, IFN g activates macrophages to enhance phagocytosis and production of reactive oxygen/nitrogen species, boosts antigen presentation by inducing MHC class I and II, and shapes adaptive immunity by promoting Th1 differentiation. It also enhances NK and cytotoxic T cell activity. IFN g deficiency results in severe susceptibility to mycobacterial and viral infections. Researchers use IFNG antibody to study cytokine signaling, immune activation, and host defense mechanisms.

Clinically, IFN g is implicated in infection, autoimmunity, and cancer. Mutations in IFNG or its receptor cause Mendelian susceptibility to mycobacterial disease. Elevated IFN g contributes to autoimmunity, including rheumatoid arthritis and lupus, where it drives chronic inflammation. IFN g also has roles in tumor immunology, promoting antigen presentation but sometimes contributing to immune evasion. Recombinant IFN g is used therapeutically for chronic granulomatous disease and osteopetrosis. NSJ Bioreagents supplies IFNG antibody for immunology, infectious disease, and oncology research.

Experimentally, IFNG antibody is used in ELISA to quantify secreted cytokine, in western blotting to detect the ~17 kDa monomer, in immunohistochemistry to assess tissue cytokine levels, and in flow cytometry to measure intracellular production in T cells and NK cells.

Application Notes

Optimal dilution of the Ifng antibody should be determined by the researcher.

Immunogen

E.coli-derived mouse IFN Gamma/Ifng recombinant protein (Position: H23-C155) was used as the immunogen for the Ifng antibody.

Storage

After reconstitution, the Ifng antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.