

Product Information

ANTI-HUMAN INTERFERON- γ (IFN- γ)

IgG Fraction of Antiserum
Developed in Goat

Product Number **I 9016**

Product Description

Anti-Human Interferon- γ (IFN- γ) was developed in goat using recombinant, human IFN- γ , expressed in *E. coli*, as the immunogen. The product is purified by Protein G affinity chromatography.

Interferon- γ (IFN- γ) exerts a variety of biological effects including antiviral activity,¹ inhibition of cell or tumor growth^{2,3} and promotion of differentiation of B cells into immunoglobulin-producing cells.^{4,5} In addition to antiviral activity, human IFN- γ is a potent modulator of immune response and modifies cellular processes.⁶ IFN- γ is classified as immune interferon.⁶ IFN- γ functions as an activating factor to prime macrophages (MAF) for non-specific tumoricidal activity⁷ and activates monocytes to exert enhanced cytotoxicity against tumor cells.⁸ IFN- γ acts as a signal for major histocompatibility antigen expression.⁹ IFN- γ boosts cytotoxicity of natural killer cells and stimulates T cell cytotoxicity. The species specificity of IFN- γ resides in the interaction of IFN- γ with its receptor.¹⁰ Human IFN- γ does not bind specifically to mouse, hamster or bovine cells.¹⁰

Reagents

Goat Anti-Human IFN- γ is provided lyophilized from 0.2 μ m-filtered phosphate buffered saline, (PBS) pH 7.4.

Storage/Stability

Store at -20°C .

Reconstituted product at $2-8^{\circ}\text{C}$ for a maximum of one month. For prolonged storage, freeze in working aliquots at -20°C . Avoid repeated freezing and thawing.

Product Profile

Anti-Human IFN- γ is tested for its ability to neutralize the biological activity of rhIFN- γ on HeLa cells.¹¹ The ND_{50} of the antibody is defined as the concentration of antibody resulting in a one-half maximal inhibition of bioactivity of rhIFN- γ that is present at a concentration just high enough to elicit a maximum response. In this

bioassay, 5 ng/ml rhIFN- γ was mixed with various dilutions of the antibody and the antigen-antibody mixture was added to confluent cultures of HeLa cells in a 96-well plate. The assay mixture was incubated at 37°C for 20-24 hours in a humidified CO_2 incubator. After incubation, the medium was aspirated from all wells and encephalomyocarditis virus (EMCV) was added to each test well. The 96-well plate was incubated for an additional 20-24 hours. The cells were fixed and examined for cytopathic effect by measurement of optical densities in a microplate reader at 540 nm.

The antibody may also be used in immunoblotting and ELISA. By ELISA and immunoblotting, the antibody shows no cross-reactivity with recombinant mouse IFN-g. In addition, by direct ELISA, the antibody does not cross-react with other cytokines tested.*

Direct ELISA: 0.5 - 1 $\mu\text{g/ml}$ antibody detects <0.6 ng/well of recombinant, human IFN- γ .

Indirect Immunoblotting: 1 - 2 $\mu\text{g/ml}$ antibody detects 5 ng/lane of recombinant, human IFN- γ under reducing and non-reducing conditions.

To one vial of lyophilized powder, add 1 ml of 0.2 mm-filtered PBS to produce a 1 mg/ml stock solution of Anti-Human IFN- γ . If aseptic technique is used, no further filtration should be needed for use in cell culture environments.

References

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* rhANG, rhAnnexin V, rhAR, rhB7-1, rhB7-2, rmB7-2, rhBTC, rhb-NGF, rhBDNF, rmC10, rhCD4, rhCD8, rhCD28, rhCNTF, rrCNTF, rhEGF, rhENA-78, rhEPO, rhFGFa, rhFGFb, rhFGF-4, rhFGF-5, rhFGF-6, rhFGF-7, rhFGF-9, rhG-CSF, rhG-CSF Ra, rmG-CSF, rhGDNF, rhGM-CSF, rhGM-CSF Ra, rmGM-CSF, rhGROa, rhGROb, rhGROg, rhHB-EGF, rhHRG-a, rhHGF, rhI-309, rmlFN-g, rhIGF-I, rhIGF-I R, rhIGF-II,

rhIL-1a, rhIL-1 RI, rhIL-1 RII, rmIL-1a, rhIL-1b, rmIL-1b, rrIL-1b, rhIL-1 ra, rmIL-1 ra, rhIL-2, rhIL-2 sRa, rhIL-2 sRb, rhIL-2 sRg, rmIL-2, rhIL-3, rhIL-3 sRa, rmIL-3, rhIL-4, rhIL-4 sR, rmIL-4, rhIL-5, rhIL-5 sRa, rhIL-5 sRb, rmIL-5, rhIL-6, rhIL-6 sR, rmIL-6, rhIL-7, rhIL-7 R, rmIL-7, rhIL-8, rhIL-9, rmIL-9, rhIL-10, rhIL-10 sR, rmIL-10, rmlIL-10 sR, rhIL-11, rhIL-12, rmlIL-12, rhIL-13, rmlIL-13, rhIL-15, rhIP-10, rhJAK-1, rmJAK-1, rmJAK-2, rmJE, rmKC, rhLIF, rhLIF R, rmLIF, rhM-CSF, rmM-CSF, rhMCP-1, rhMCP-1 R, rhMCP-2, rhMCP-3, rhMidkine, rhMIF, rhMIP-1a, rmMIP-1a, rhMIP-1b, rmMIP-1b, rmMIP-2, rhNT-3, rhNT-4, rhOSM, rhPD-ECGF, hPDGF, pPDGF, rhPDGF-AA, rhPDGF-AB, rhPDGF-BB, rhPDGF Ra, rhPIGF, rhPTN, rhRANTES, rhSCF, rmSCF, rhsgp130, rhSLPI, rhSTAT-1, rmSTAT-3, rmSTAT-4, hTfR, rhTGF-a, rhTGF-b1, rhTGF-b2, rhTGF-b3, raTGF-b5, rhLAP (TGF-b1), rhLatent TGF-b1, rhTGF-b sRII, rhTGF-b sRIII, rhTNF-a, rmTNF-a, rrTNF-a, rhTNF-b, rhtNF RI, rhtNF RII, rhTPO, rmTPO, rhVEGF, rmVEGF.

JWM/VLE 9/02

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