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Product Information

Anti-Interferon-γ
produced in goat, IgG fraction of antiserum

Catalog Number **I9016**

Synonym: Anti-IFN-γ

Product Description

Anti-Interferon-γ was produced 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 activity[7] 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]

Reagent

Lyophilized from 0.2 μm-filtered solution in phosphate buffered saline containing carbohydrates.

Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Safety Data Sheet for information regarding hazards and safe handling practices.

Preparation Instructions

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

Storage/Stability

Store at –20 °C. Reconstituted product is stable at 2-8 °C for a maximum of one month. For prolonged storage, freeze in working aliquots at –20 °C. Avoid repeated freezing and thawing.

Product Profile

Neutralization: Anti-Interferon-γ was 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. In ELISA and immunoblotting, the antibody shows no cross-reactivity with recombinant mouse IFN-γ. In addition, by direct ELISA, the antibody does not cross-react with other cytokines tested.*

Direct ELISA: 0.5-1 μg/ml antibody detects <0.6 ng/well of recombinant, human IFN-γ.

Indirect Immunoblotting: 1-2 μg/ml antibody detects 5 ng/lane of recombinant, human IFN-γ under reducing and non-reducing conditions.

Endotoxin level: <0.1 EU per μg of antibody determined by LAL.

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, rmIFN-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, rmIL-10 sR, rhIL-11, rhIL-12, rmIL-12, rhIL-13, rmIL-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, rhPlGF, 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, rhsTNF RI, rhsTNF RII, rhTPO, rmTPO, rhVEGF, rmVEGF.

ADM,PHC,TMS,MAM 06/16-1