Recombinant Human Interferon–γ (IFN–γ)

Catalog Number PHC4031 (100 µg), PHC4033 (1 mg)

Pub. No. MAN0003600 **Rev.** 3.0

Product specifications

Lot number	See product label.
Molecular weight	16.9 kDa
Purity	>95% as determined by SDS PAGE analysis.
Amino acid sequence	QDPYVKEAEN LKKYFNAGHS DVADNGTLFL GILKNWKEES DRKIMQSQIV SFYFKLFKNF KDDQSIQKSV ETIKEDMNVK FFNSNKKKRD DFEKLTNYSV TDLNVQRKAI HELIQVMAEL SPAAKTGKRK RSQMLFQGRR ASQ
Biological activity	ED_{50} 0.5–3.0 ng/mL (specific activity: 2.0 x 10^6 to 3.3 x 10^5 units/mg), determined by the dose dependent cytostasis of human WiDr cells. Determine the optimal concentration for each specific application using an initial dose response assay.
Formulation	Purified protein in 40 mM Tris pH 7.4, carrier free.
Sterility	Filtered before packaging through a 0.22 micron sterile filter.
Endotoxin	<0.1 ng/µg
Production	Produced in *E. coli* and purified via sequential chromatography .
Suggested working dilutions	The optimal concentration should be determined for each specific application.
Storage	Store at –80°C. Upon initial thawing, we recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. The contents should then be apportioned into working aliquots and stored at –80°C. Avoid repeated freeze-thaw cycles. Further dilutions should be made in low endotoxin medium or buffered solution with FBS or tissue culture grade BSA. Recombinant human IFN-γ should be kept as a solution in order to maintain full activity .
Expiration date	Expires one year from date of receipt when stored as instructed.
References	Alderson, MR, Armitage, RJ, Tough, TW, and Ziegler, SF. (1994) Synergistic effects of IL-4 and either GM-CSF or IL-3 on the induction of CD23 expression by human monocytes: regulatory effects of IFN-alpha and IFN-gamma. Cytokine 6(4):407-413. Cao, HJ, Wang, HS, Zhang, Y, Lin, HY, Phipps, RP, and Smith, TJ. (1998) Activation of human orbital fibroblasts through CD40 engagement results in a dramatic induction of hyaluronan synthesis and prostaglandin endoperoxide H synthase-2 expression. Insights into potential pathogenic mechanisms of thyroid-associated ophthalmopathy. J. Biol. Chem. 273 (45):29615-29625. Dovhey, SE, Ghosh, NS, and Wright, KL. (2000) Loss of interferon-γ inducibility of TAP1 and LMP2 in a renal cell carcinoma cell line. Cancer Research 60:5789-5796. Francisco, JA, Gawlak, SL, and Siegall, CB. (1997) Construction, expression, and characterization of BD1-G28-5 sFv, a single-chain anti-CD40 immunotoxin containing the ribosome-inactivating protein bryodin 1. J. Biol. Chem. 272(39):24165-24169. Jelinek, DF, Aagaard-Tillery, KM, Arendt, BK, Arora, T, Tschumper, RC, and Westendorf, JJ. (1997) Differential human multiple myeloma cell line responsiveness to interferon-alpha. Analysis of transcription factor activation and interleukin 6 receptor expression J. Clin. Invest. 99(3):447-456. Kahlert, H, Grage-Griebenow, E, Stuwe, HT, Cromwell, O, and Fiebig, H. (2000) T cell reactivity with allergoids: Influence of the type of APC. J. Immunol. 165(4):1807-1815. Karanikas, V, Hwang, LA, Pearson, J, Ong, CS, Apostolopoulos, V, Vaughan, H, Xing, PX, Jamieson, G, Pietersz, G, Tait, B, Broadbent, R, Thynne, G, and McKenzie, IF. (1997) Antibody and T cell responses of patients with adenocarcinoma immunized with mannan-MUC1 fusion protein. J. Clin. Invest. 100(11):2783-2792. Lin, HY, Martino, LJ, Wilcox, BD, Davis, FB, Gordinier, JK, and Davis, PJ. (1998) Potentiation by thyroid hormone of human IFN-gamma-induced HLA-DR expression. J. Immunol. 161(2):843-849.

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