

Recombinant Human Interferon- α A Pure, carrier-free








Publication Part Number MAN0004530







Rev. 1.00

Catalog Number:	PHC4014
Quantity/Volume:	5 μ g/100 μ L
Lot Number:	See product label.
Molecular Weight:	19.2 kDa
Purity:	\geq 95%
Biological Activity:	2.5 \times 10 ⁸ units/mg. Assay used to measure bioactivity: Interferon was titrated with the use of the cytopathic effect inhibition assay as described [Rubinstein, S., Familletti, P.C., and Pestka, S. (1981) "Convenient Assay for Interferons," <i>J. Virol.</i> 37, 755-758; Familletti, P.C., Rubinstein, S., and Pestka, S. (1981) "A Convenient and Rapid Cytopathic Effect Inhibition Assay for Interferon," in <i>Methods in Enzymology</i> , Vol. 78 (S. Pestka, ed.), Academic Press, New York, 387-394]. In this antiviral assay for interferon about 1 unit/mL of interferon is the quantity necessary to produce 50% cytopathic effect. The units are determined with respect to the international reference standard for human interferon alpha (Hu-IFN- α provided by the National Institutes of Health [see Pestka, S. (1986) "Interferon Standards and General Abbreviations," in <i>Methods in Enzymology</i> , Vol. 119 (S. Pestka, ed.), Academic Press, New York, 14-23]. The activity was determined using bovine MDBK cells challenged with vesicular stomatitis virus (VSV).
Formulation:	Phosphate buffered saline (PBS), carrier-free.
Production:	Produced in <i>E. coli</i> from cDNA corresponding to gene IFNA2 transcript. Purified by sequential chromatography.
Dilution Recommendation:	Further dilutions should be made in medium or buffered solution containing carrier protein such as PBS with 0.1% BSA.
Storage:	Store human IFN- α A at \leq -70°C. Upon initial thawing, apportion into working aliquots and store at \leq -70°C. Keep freeze/thaw cycles to a minimum.
Expiration Date:	Expires one year from date of receipt when stored as instructed.
References:	<p>Loparev, V., J. Parsons, J. Knight, J. Fanelli Panus, C. Ray, R. Buller, D. Pickup, and J. Esposito (1998) A third distinct tumor necrosis factor receptor of orthopoxviruses. <i>Proc. Nat'l. Acad. Sci.</i> 95(7):3786-3791.</p> <p>Buckley, C.D., N. Amft, P.F. Bradfield, D. Pilling, E. Ross, F. Arenzana-Seisdedos, A. Amara, S.J. Curnow, J.M. Lord, D. Scheel-Toellner, and M. Salmon (2000) Persistent induction of the chemokine receptor CXCR4 by TGF-β 1 on synovial T cells contributes to their accumulation within the rheumatoid synovium. <i>J Immunol.</i> 165(6):3423-3429.</p> <p>von Baehr, V., W. Mayer, C. Liebenthal, R. von Baehr, W. Bieger, and H.-D. Volk (2001) Improving the in vitro antigen specific T cell proliferation assay: the use of interferon-alpha to elicit antigen specific stimulation and decrease bystander proliferation. <i>J. Immunol. Meth.</i> 251:63-71.</p> <p>Szabo, G., D. Catalano, G. Bellerose, and P. Mandrekar (2001) Interferon alpha and alcohol augment nuclear regulatory factor-kappa B activation in HepG2 cells, and interferon alpha increases pro-inflammatory cytokine production. <i>Alcoholism-Clinical and Experimental Research</i> 25(8):1188-1197.</p> <p>Simmen, K.A., J. Singh, B.G.M. Luukkonen, M. Lopper, A. Bittner, N.E. Miller, M.R. Jackson, T. Compton, and K. Fruh (2001) Global modulation of cellular transcription by human cytomegalovirus is initiated by viral glycoprotein B. <i>Proc. Nat'l. Acad. Sci. U.S.A.</i> 98(13):7140-7145.</p> <p>Kirou, K.A., R.K. Vakkalanka, M.J. Butler, and M.K. Crow (2000) Induction of Fas ligand-mediated apoptosis by interferon-α. <i>Clin. Immunol.</i> 95:218-226.</p> <p>Mariner, J.M., Y. Mamane, J. Hiscott, T.A. Waldmann, and N. Azimi (2002) IFN regulatory factor 4 participates in the human T cell lymphotropic virus type I-mediated activation of the IL-15 receptor α promoter. <i>J. Immunol.</i> 168:5667-5674.</p>

Explanation of Symbols

The symbols present on the product label are explained below:

Symbol	Description
	Catalog Number
	Research Use Only
	Use by
	Manufacturer
	Without, does not contain
	Protect from light
	Directs the user to consult instructions for use (IFU), accompanying the product.

Symbol	Description
	Batch code
	In vitro diagnostic medical device
	Temperature limitation
	European Community authorized representative
	With, contains
	Consult accompanying documents

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Revision Date 09 June 2011

