

Recombinant Human Interferon- α A Pure, With Carrier








Publication Part Number MAN0004535







Rev. 1.00

Catalog Number:	PHC4814
Quantity/Volume:	8.4 × 10 ⁶ units/100 μ L
Lot Number:	See product label.
Molecular Weight:	19.2 kDa
Purity:	>95% by SDS-PAGE
Biological Activity:	4.0 × 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-alphaA (Hu-IFN- α A 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 with bovine MDBK cells challenged with vesicular stomatitis virus (VSV).
Formulation:	Phosphate buffered saline containing 0.1% BSA.
Production:	Produced in <i>E. coli</i> transfected with cDNA, derived from mRNA transcribed from the IFNA2 gene.
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 –70°C. Upon initial thawing, apportion contents into working aliquots and store at –70°C. Avoid repeated freeze thaw cycles.
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>Proceedings of the National Academy of Sciences (USA)</i> 95(7):3786–3791.</p> <p>Roos, A., E.J.M. Schilder-Tol, J.J. Weening, and J. Aten (1998) Strong expression of CD134 (OX40), a member of the TNF receptor family, in a T helper 2-type cytokine environment. <i>Journal of Leukocyte Biology</i> 64:503–510.</p> <p>Lombardi, G., P.J. Dunne, D. Scheel-Toellner, T. Sanyal, D. Pilling, L.S. Taams, P. Life, J.M. Lord, M. Salmon, and A.N. Akbar (2000) Type 1 IFN maintains the survival of anergic CD4(+) T cells. <i>Journal of Immunology</i> 165(7):3782–3789.</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>Journal of Immunological Methods</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>Liu, H., H. Kang, R. Liu, X. Chen, and K. Zhao (2002) Maximal induction of a subset of interferon target genes requires the chromatin-remodeling activity of the BAF complex. <i>Molecular and Cellular Biology</i> 22(18):6471–6479.</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>Proceedings of the National Academy of Sciences (USA)</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>Clinical Immunology</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>Journal of Immunology</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

Limited Use Label License: Research Use Only

The purchase of this product conveys to the purchaser the limited, non-transferable right to use the purchased amount of the product only to perform internal research for the sole benefit of the purchaser. No right to resell this product or any of its components is conveyed expressly, by implication, or by estoppel. This product is for internal research purposes only and is not for use in commercial applications of any kind, including, without limitation, quality control and commercial services such as reporting the results of purchaser's activities for a fee or other form of consideration. For information on obtaining additional rights, please contact outlicensing@lifetech.com or Out Licensing, Life Technologies, 5791 Van Allen Way, Carlsbad, California 92008.

For Research Use Only. Caution: Not for human or animal therapeutic or diagnostic use.

Manufactured under ISO 13485 Quality Standard

Manufacturing site: 7335 Executive Way | Frederick, MD 21704 | Toll Free in USA 800.955.6288

© 2011 Life Technologies Corporation. All rights reserved. The trademarks mentioned herein are the property of Life Technologies Corporation or their respective owners.

For support visit www.lifetechnologies.com/support or email techsupport@lifetech.com

www.lifetechnologies.com

Revision Date 16 June 2011

