

# Recombinant Rat Interferon- $\alpha$ (IFN- $\alpha$ 1)








Publication Number MAN0004512







Rev. 1.00

<b>Catalog Number:</b>	PRC4014
<b>Quantity:</b>	10 <sup>5</sup> units
<b>Lot Number:</b>	See product label.
<b>Molecular Weight:</b>	Approximately 19 kDa
<b>Biological Activity:</b>	<p>1 × 10<sup>8</sup> units/mg. One unit of activity is the amount of recombinant rat interferon-<math>\alpha</math> that inhibits the cytopathic effect of Vesicular Stomatitis virus (VSV) by 50% in monolayer cultures of R4ec cells grown in 96-well microtiter plates.</p> <p><b>Important note:</b> This recombinant rat interferon-<math>\alpha</math> requires the presence of a reducing agent, such as glutathione, for full biological activity. We recommend supplementing all tissue culture media to which this recombinant rat interferon-<math>\alpha</math> will be added with 2 mM glutathione to ensure full biological activity.</p>
<b>Species Reactivity:</b>	This recombinant rat interferon- $\alpha$ exhibits 6% anti-viral effect with mouse cells and <0.1% anti-viral effect with human cells.
<b>Formulation:</b>	Lyophilized from 0.5 mL of solution containing citric acid buffered saline, pH 5.0, 50 $\mu$ g rat serum albumin and 125 mM trehalose. Sterile filtered (0.22 $\mu$ m) prior to lyophilization.
<b>Endotoxin:</b>	≤1 EU/vial
<b>Production:</b>	Recombinant rat interferon- $\alpha$ is produced in serum-free medium by <i>Spodoptera frugiperda</i> insect cells (Sf9) transfected with baculovirus containing the rat IFN- $\alpha$ 1 chromosomal gene. Recombinant rat interferon- $\alpha$ is purified by chromatography.
<b>Reconstitution Recommendation:</b>	Reconstitute recombinant rat interferon- $\alpha$ by injecting 0.5 mL sterile, distilled water into the vial. Mix by swirling the vial.
<b>Suggested Working Dilutions:</b>	The optimal concentration should be determined for each specific application.
<b>Storage:</b>	Store at 2°C to 8°C. Upon reconstitution, recombinant rat interferon- $\alpha$ is stable for up to two weeks at 2°C to 8°C. For maximal stability, apportion reconstituted recombinant rat interferon- $\alpha$ 1 into working aliquots and store at -80°C. Avoid repeated freeze/thaw cycles.
<b>Expiration Date:</b>	Expires one year from date of receipt when stored as instructed.
<b>References:</b>	<p>Dijkema, R., P. Pouwels, A. de Reus, and H. Schellekens (1984) Structure and expression in Escherichia coli of a cloned rat interferon-alpha gene. Nucleic Acids Res. 12(2):1227-1242.</p> <p>Jewett, A. and B. Bonavida (1996) Target-induced inactivation and cell death by apoptosis in a subset of human NK cells. J. Immunol. 156(3):907-915.</p> <p>van der Meide, P. H., R. Dijkema, M. Caspers, K. Vijverberg, and H. Schellekens (1986) Cloning, expression, and purification of rat IFN-alpha 1. Methods Enzymol. 119:441-453.</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](mailto: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.**

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](http://www.lifetechnologies.com/support) or email [techsupport@lifetech.com](mailto:techsupport@lifetech.com)

[www.lifetechnologies.com](http://www.lifetechnologies.com)

Revision Date 03 June 2011

