



Certificate of Analysis

Human Interferon Beta 1a, mammalian

Catalog No: 11415-1

Lot No: 7600R

Expiration: August 10, 2025

Size: $\geq 1 \times 10^5$ units/vial

Description: Recombinant Human Interferon Beta 1a, mammalian (Hu-IFN- β -1a)

Volume: 0.1 ml

Activity: 4.12×10^6 units/ml

Specific Activity: 4.12×10^8 units/mg

Buffer: 50 mM NaOAc, pH 5.5 containing 0.1% BSA

Endotoxin: < 1 EU/ μ g

Molecular Weight: ~ 23 kDa

Purity: $> 95\%$, one N-linked glycosylation site

Purification Method: Proprietary chromatography methods

Source: cDNA obtained from human fibroblast mRNA expressed in CHO cells

Human Gene: IFNB1

Synonyms: Fibroblast Interferon

Accession #: V00534

Assay Used to Measure Bioactivity: Interferon was titrated with the use of the cytopathic effect inhibition assay as described [Familletti, *et al.* (1981) "A Convenience and Rapid Cytopathic Effect Inhibition Assay for Interferon," in *Methods in Enzymology*, Vol. 78 (S. Pestka, ed.), Academic Press, New York, 387-394]. Encephalomyocarditis virus (EMCV) was used to challenge A549 cells [Budd *et al.* (1985) *Canc. Chem. Pharm.* 12:39]. The activity was determined relative to a lab standard of Hu-IFN- β which was calibrated to the NIH Hu-IFN- β standard (Gb23-902-531). The EC_{50} for IFN is ~ 1 U/ml. Lot Activity was derived from multiple determinations in the above assay. Please note that IFN assays vary between labs and assay systems [Meager *et al.* (2001). *J. Immunol. Meth.* 257:17. Meager and Das (2005) *J. Immunol. Meth.* 306:1]

Shipping Conditions: Dry Ice

Physical State of Product During Shipping: Frozen

Storage Conditions/Comments: After receipt the product may be stored at -20°C for short-term use (≤ 6 months). For long-term storage, we recommend storing the product at -70°C or below for retention of full activity. Thaw product vial by incubation in cold tap water until just thawed – the contents of the tube should be apportioned in separate tubes so that freezing and thawing is kept to a minimum. Refreezing should be done on dry ice or in a dry ice/alcohol bath. Further dilution of the product should be in buffers containing protein such as 0.1% bovine serum albumin (BSA). For more information on protein handling, visit our Resource Library at www.pbl assaysci.com.

Authorization

Released by: _____

Date: November 20, 2023

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