



## Certificate of Analysis

### Human Interferon Beta 1a, mammalian

**Catalog No:** 11415-1

**Lot No:** 7189

**Expiration:** October 17, 2021

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

**Description:** Recombinant Human Interferon Beta 1a, mammalian (Hu-IFN- $\beta$ -1a)

**Volume:** 0.1 ml

**Activity:**  $2.22 \times 10^6$  units/ml

**Specific Activity:**  $2.22 \times 10^8$  units/mg

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

**Endotoxin:**  $< 1$  EU/ $\mu$ 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- $\beta$  which was calibrated to the NIH Hu-IFN- $\beta$  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  $-20^{\circ}\text{C}$  for short-term use ( $\leq 6$  months). For long-term storage, we recommend storing the product at  $-70^{\circ}\text{C}$  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](http://www.pbl assaysci.com).

### Authorization

Released by: \_\_\_\_\_

Date: May 19, 2020

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