



## Certificate of Analysis

### Human Interferon Alpha 2 (Alpha 2b)

**Catalog No:** 11105-1

**Lot No:** 7361

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

**Description:** Recombinant Human Interferon Alpha 2 (Alpha 2b) (Hu-IFN- $\alpha$ 2; Hu-IFN- $\alpha$ 2b)

**Volume:** 0.1 ml

**Activity:**  $1.86 \times 10^6$  units/ml

**Specific Activity:**  $1.86 \times 10^8$  units/mg

**Buffer:** Phosphate buffered saline (PBS) containing 0.1% bovine serum albumin (BSA)

**Endotoxin:**  $< 1$  EU/ $\mu$ g

**Molecular Weight:** 19.3 kDa

**Purity:**  $> 95\%$

**Purification Method:** A combination of ion exchange, hydrophobic interaction and size exclusion chromatography.

**Source:** Human leukocyte interferon cDNA expressed in *E. coli*

**Human Gene:** IFNA2

**Synonyms:** None

**Accession #:** V00548

**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," *J. Virol.* 37, 755-758; Familletti, P.C., Rubinstein, S., and Pestka, S. (1981) "A Convenient and Rapid Cytopathic Effect Inhibition Assay for Interferon," in *Methods in Enzymology*, 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 a cytopathic effect of 50%. The units are determined with respect to the international reference standard for human interferon alpha A (Hu-IFN- $\alpha$ A) provided by the National Institutes of Health [see Pestka, S. (1986) "Interferon Standards and General Abbreviations," in *Methods in Enzymology* (S. Pestka, ed.), Academic Press, New York 119, 14-23]. Unit of activity measured on bovine MDBK cells with vesicular stomatitis virus (VSV).

**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. When thawing, 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) or tissue culture media with serum. Dilution of material below  $2 \times 10^5$  units/ml for freezing is not recommended. One freeze-thaw cycle is equivalent to thawing an aliquot prepared from the material received. [The activity measured after one freeze-thaw cycle is  $2.65 \times 10^6$  units/ml (MDBK/VSV)]. For more information on protein handling, visit our Resource Library at [www.pbl assaysci.com](http://www.pbl assaysci.com).

### Authorization

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

Date: April 19, 2021

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