



## Certificate of Analysis

### Human Interferon Alpha A (Alpha 2a), carrier-free

**Catalog No:** 11101-9

**Lot No:** 7163

**Size:** 0.880 mg/vial

**Description:** Recombinant Human Interferon Alpha A (Alpha 2a), carrier-free (Hu-IFN- $\alpha$ A; Hu-IFN- $\alpha$ 2a)

**Volume:** 4.4 ml

**Concentration:** 0.2 mg/ml

**Specific Activity:**  $3.50 \times 10^8$  units/mg

**Buffer:** phosphate buffered saline (PBS)

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

**Molecular Weight:** 19.2 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*

**Accession #:** V00549

**Human Gene:** IFNA2

**Synonyms:** None

**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°C for short-term use ( $\leq$  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.pblassaysci.com](http://www.pblassaysci.com).

### Authorization

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

Date: December 30, 2019

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