



GTCTCTTACC CCGATGTTCA ACCAAAAG ACTTACTACC TTTATTTTAT GTTTACTTTT TATAGATTGT CTTTATTATC  
CTCTCTTACC CCGATGTTCA ACCAAAAG ACTTACTACC TTTATTTTAT GTTTACTTTT TATAGATTGT CTTTATTATC  
AGAAAAAAA

## HUMAN INTERFERON ALPHA 4b

Product Number: 11180-1

Lot Number:

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

**Description:** Recombinant Human Interferon Alpha 4b (Hu-IFN- $\alpha$ 4b; Hu-IFN- $\alpha$ 4)

**Volume:** 0.1 ml

**Activity:** x 10 units/ml (MDBK/VSV)

**Specific Activity:** x 10 units/mg (MDBK/VSV)

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

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

**Molecular Weight:** 19.4 kDa

**Purity:**  $\geq 95\%$

**Purification Method:** Purified from E. coli by a combination of Ion Exchange, Hydrophobic Interaction, and size exclusion chromatography

**Source:** cDNA obtained from human leukocyte mRNA expressed in E. coli

**Human Gene:** IFNA4

**Synonyms:** Hu-IFN- $\alpha$ 4

**Accession Number:** X02955

**Assay Used to Measure Bioactivity:** Interferon was titrated with the use of the cytopathic effect inhibition assay as listed.

*Bovine (MDBK/VSV)*-performed as described [Rubinstein *et al.* (1981) *J. Virol.* 37 (2):755]. The EC<sub>50</sub> for interferon in this assay is ~ 5 U/ml. Lot Activity was derived from multiple determinations in the above assay.

*Human (A549/EMCV)* - performed as described [Budd *et al.* (1985) *Canc. Chem. Pharm.* 12:39]. The EC<sub>50</sub> for interferon in this assay is ~ 1 U/ml. **Activity:** x 10 units/ml **Specific Activity:** x 10 units/mg

The units are determined by use of a Human IFN Alpha A [Hu IFN- $\alpha$ A [2a]] laboratory standard calibrated to the international reference standard for Human Interferon Alpha A [Hu IFN- $\alpha$ A [2a]] provided by the National Institutes of Health [Meager *et al.* (2001) *J. Immunol Methods.* 257(1-2):17-33]. 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 Information

**Shipping Conditions:** Dry ice

**Physical State of Product during Shipping:** Frozen

**Special Conditions/Comments:** After receipt, this product should be kept at -70°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. Re-freezing 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 for freezing of material below  $2 \times 10^5$  units/ml 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 x 10 units/ml (MDBK/VSV)].

### Authorization

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

Date:



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Rev.02