

## Recombinant Human Interferon-alpha1b (rHuIFN-α1b)

## **ChemWhat Technical Data Sheet (TDS)**

Catalog Number:

106-02

Source:

Escherichia coli.

Molecular Weight:

Approximately 19.5 kDa, a single non-glycosylated polypeptide chain containing 167 amino acids.

Quantity:

 $2\mu g/10\mu g/1000\mu g$ 

AA Sequence:

MCDLPETHSL DNRRTLMLLA QMSRISPSSC LMDRHDFGFP QEEFDGNQFQ KAPAISVLHE LIQQIFNLFT TKDSSAAWDE DLLDKFCTEL YQQLNDLEAC VMQEERVGET PLMNVDSILA VKKYFRRITL YLTEKKYSPC AWEVVRAEIM

RSLSLSTNLQ ERLRRKE

**Purity:** 

> 96 % by SDS-PAGE and HPLC analyses.

**Biological Activity:** 

Fully biologically active when compared to standard. The specific activity determined by an anti-viral

assay is no less than  $1.0 \times 10^8$  IU/mg.

Physical Appearance:

Sterile Filtered White lyophilized (freeze-dried) powder.

Formulation:

Lyophilized from a 0.2 µm filtered solution in PBS, pH 7.4, containing 4 % mannitol and 1 % HSA.

Endotoxin:

Less than 1 EU/μg of rHuIFN-α1b as determined by LAL method.

Reconstitution:

We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in sterile distilled water or aqueous buffer containing 0.1 % BSA to a concentration of 0.1-1.0 mg/mL. Stock solutions should be apportioned into working aliquots and

stored at  $\leq$  -20  $\mathbb C\,$  . Further dilutions should be made in appropriate buffered solutions.

Shipping:

The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature

recommended below.

Stability & Storage:

Use a manual defrost freezer and avoid repeated freeze-thaw cycles.

■ 12 months from date of receipt, -20 to -70 °C as supplied.

1 month, 2 to 8 °C under sterile conditions after reconstitution.

3 months, -20 to -70 °C under sterile conditions after reconstitution.

Usage:

ChemWhat Limited in UK offers this branded product for research, development or further

evaluation purposes. NOT FOR HUMAN USE.

## Human Interferon-alpha1b

IFN- $\alpha$ s are proteins secreted by leukocyte. They are mainly involved in innate immune response against viral infection. The IFN- $\alpha$  family has 13 subtypes and 23 different variants. The individual proteins have molecular masses between 19-26 kDa and consist of proteins with lengths of 156-166 and 172 amino acids. All IFN- $\alpha$  subtypes possess a common conserved sequence region between amino acid positions 115-151 while the amino-terminal ends are variable. Many IFN-alpha subtypes differ in their sequences at only one or two positions. Naturally occurring variants also include proteins truncated by 10 amino acids at the carboxy-terminal end.

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