

Recombinant Human IFN-alpha1b

Information

Gene ID	3439
Accession #	P01562
Alternate Names	
Source	<i>Escherichia coli</i> .
M.Wt	Approximately 19.5 kDa, a single non-glycosylated polypeptide chain containing 167 amino acids.
AA Sequence	MCDLPETHSL DNRRTLMLLA QMSRISPSSC LMDRHDFGFP QEEFDGNQFQ KAPAI SVLHE LIQQIFNLFT TKDSSAAWDE DLLDKFCTEL YQQLNDLEAC VMQEERVGET PLMNVDSILA VKKYFRITL YLTEKKYSPC AWEVVRAEIM RSLSLSTNLQ ERLRRKE
Appearance	Sterile Filtered White lyophilized (freeze-dried) powder.
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.
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS, pH 7.4, containing 4 % mannitol and 1 % HSA.
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 ≤ -20 °C. Further dilutions should be made in appropriate buffered solutions.
Biological Activity	Fully biologically active when compared to standard. The specific activity determined by an anti-viral assay is no less than 1.0×10^8 IU/mg.
Shipping Condition	Gel pack.
Handling	Centrifuge the vial prior to opening.
Usage	For Research Use Only! Not to be used in humans.

Components and Storage

Components	10 µg	100 µg	500 µg
Recombinant Human IFN-alpha1b	10 µg	100 µg	500 µg

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Quality Control

Purity	> 96 % by SDS-PAGE and HPLC analyses.
Endotoxin	Less than 1 EU/ μ g of rHuIFN- α 1b as determined by LAL method.

Description

IFN- α s are proteins secreted by leukocyte. They are mainly involved in innate immune response against viral infection. The IFN- α 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- α 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.

Reference

1. Tarhini AA, Gogas H, Kirkwood JM. 2012. J Immunol, 189: 3789-93.
2. Tohyama M, Yang L, Hanakawa Y, et al. 2012. J Invest Dermatol, 132: 1933-5.
3. Corssmit EP, Heijligenberg R, Hack CE, et al. 1997. Clin Exp Immunol, 107: 359-63.
4. Corssmit EP, de Metz J, Sauerwein HP, et al. 2000. J Interferon Cytokine Res, 20: 1039-47.

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