Datasheet

Cat. No. P1149

Recombinant Human IFN-beta1b

Information

Gene ID	3456
Accession #	P01574
Alternate Names	
Source	*Escherichia coli.*
M.Wt	Approximately 20.0 kDa, a single non-glycosylated polypeptide chain containing 166 amino acids.
AA Sequence	MSYNLLGFLQ RSSNFQCQKL LWQLNGRLEY CLKDRMNFDI PEEIKQLQQF QKEDAALTIY EMLQNIFAIF RQDSSSTGWN ETIVENLLAN VYHQINHLKT VLEEKLEKED FTRGKLMSSL HLKRYYGRIL HYLKAKEYSH CAWTIVRVEI LRNFYFINRL TGYLRN
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 concentrated solution in PBS, pH 7.4, containing 2 % HSA and 3 % mannitol.
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 3.0×10^7 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-beta1b	10 μg	100 μg	500 μg

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

Quality Control

Purity	> 97 % by SDS-PAGE and HPLC analyses.
Endotoxin	Less than 1 EU/μg of rHuIFN-β1b as determined by LAL method.

Description

IFN-βs are proteins produced by many cell types including lymphocytes (NK cells, B-cells and T-cells), macrophages, fibroblasts, endothelial cells, osteoblasts and others. They have antiviral activity that it is mainly involved in innate immune response. The IFN-β family has 2 subtypes，which are IFN-β1 (IFNB1) and IFN-β3 (IFNB3) (a gene designated IFN-β2 is actually IL-6). IFN-β1 is used as a treatment for multiple sclerosis as it reduces the relapse rate.

Reference

1. Yoshino A, Tashiro S, Ogino A, et al. 2011. Int J Oncol, 39: 529-42.

2. Farrell RA, Marta M, Gaeguta AJ, et al. 2012. Rheumatology (Oxford), 51: 590-9.

3. Breckpot K, Corthals J, Bonehill A, et al. 2005. J Leukoc Biol, 78: 898-908.

4. Oger J, Francis G, Chang P. 2005. J Neurol Sci, 237: 45-52.

5. Giorelli M, Livrea P, Trojano M. 2005. J Interferon Cytokine Res, 25: 395-406.

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