

PRODUCT DATA SHEET



Bioworld Technology, Inc.

Recombinant Human Interferon- λ 1 (rHu IFN- λ 1)

Catalog Number: PR1050

Source: Escherichia coli.

Quantity: 5 μ g/20 μ g/1.0mg

Description

IL-28A, IL-28B, and IL-29, also named interferon- λ 2 (IFN- λ 2), IFN- λ 3, and IFN- λ 1, respectively, are newly identified class II cytokine receptor ligands that are distantly related to members of the IL-10 family (11-13% aa sequence identity) and the type I IFN family (15-19% aa sequence identity). The expression of IL-28A, B, and IL-29 is induced by virus infection or double-stranded RNA. All three cytokines exert bioactivities that overlap those of type I IFNs, including antiviral activity and up-regulation of MHC class I antigen expression. The three proteins signal through the same heterodimeric receptor complex that is composed of the IL-10 receptor β (IL-10 R β) and a novel IL-28 receptor α (IL-28 R α , also known as IFN- λ R1). Ligand binding to the receptor complex induces Jak kinase activation and STAT1 and STAT2 tyrosine phosphorylation.

Molecular Weight:

19.8 kDa, a single non-glycosylated polypeptide chain containing 178 amino acids.

Purity:

>97% by SDS-PAGE and HPLC analyses.

Biological Activity:

Fully biologically active when compared to standard. The ED50 is determined in an anti-viral assay using human HepG2 cells infected with encephalomyocarditis is typically 1-5 ng/ml, corresponding to a Specific Activity of \square x 10⁵ IU/mg.

Physical Appearance:

Sterile Filtered White lyophilized (freeze-dried) powder.

Formulation:

Lyophilized from a 0.2 μ m filtered concentrated solution in 20mM PB, pH 7.4, 130mM NaCl.

AA Sequence:

P T S K P T T T G K G C H I G R F K S L S P Q E L A S F
K K A R D A L E E S L K L K N W S C S S P V F P G N W
D L R L L Q V R E R P V A L E A E L A L T L K V L E A
A A G P A L E D V L D Q P L H T L H H I L S Q L Q A C
I Q P Q P T A G P R P R G R L H H W L H R L Q E A P K
K E S A G C L E A S V T F N L F R L L T R D L K Y V A
D G N L C L R T S T H P E S T

Endotoxin:

Less than 1EU/ μ g of rHuIFN- λ 1 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 <-20 \square C. Further dilutions should be made in appropriate buffered solutions.

Storage:

This lyophilized preparation is stable at 2-8 \square C, but should be kept at -20 \square C for long term storage, preferably desiccated. Upon reconstitution, the preparation is stable for up to one

MADE IN CHINA

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week at 2-8°C. For maximal stability, apportion the reconstituted preparation into working aliquots and store at -20°C to -70°C. Avoid repeated freeze/thaw cycles.

Usage:

This material is offered by USA Bioworld biotech for research, laboratory or further evaluation purposes. NOT FOR HUMAN USE. Made in China

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