Technical Data Sheet

Recombinant Human Interferon-λ1 (rHu IFN-λ1)

Human IFN-λ1 (IL-29)

IL-28A, IL-28B, and IL-29, also named interferon-λ2 (IFN-λ2), IFN-λ3, and IFN-λ1, 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 Rβ) and a novel IL-28 receptor α (IL-28 Rα, also known as IFN-λR1). Ligand binding to the receptor complex induces Jak kinase activation and STAT1 and STAT2 tyrosine phosphorylation.

Catalog Number:	RC217-18
Source:	*Escherichia coli.*
Molecular Weight:	19.8 kDa, a single non-glycosylated polypeptide chain containing 178 amino acids.
Quantity:	5ug/20ug/1mg
Purity:	>97% by SDS-PAGE and HPLC analyses.
Biological Activity:	Fully biologically active when compared to standard. The ED_{50} is determined in an anti-viral assay using human HepG2 cells infected with encephalomyocarditis is typically 1-5 ng/ml.
Physical Appearance:	Sterile Filtered White lyophilized (freeze-dried) powder.
Formulation:	Lyophilized from a 0.2μm filtered concentrated (1.0mg/ml) solution in 20mM PB, pH 7.4, 130mM NaCl.
AA Sequence:	PTSKPTTTGK GCHIGRFKSL SPQELASFKK ARDALEESLK LKNWSCSSPV FPGNWDLRLL QVRERPVALE AELALTLKVL EAAAGPALED VLDQPLHTLH HILSQLQACI QPQPTAGPRP RGRLHHWLHR LQEAPKKESA GCLEASVTFN LFRLLTRDLK YVADGNLCLR TSTHPEST
Endotoxin:	Less than 1EU/μg of rHuIFN-λ1 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°C. Further dilutions should be made in appropriate buffered solutions.
Storage:	This lyophilized preparation is stable at 2-8°C, but should be kept at -20°C for long term storage, preferably desiccated. Upon reconstitution, the preparation is stable for up to one 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 Bio Basic Inc. for research, laboratory or further evaluation purposes. **NOT FOR HUMAN USE**.