

IFNB1

Recombinant Human Interferon beta 1b

Catalog No.	CSI12305A CSI12305C	Quantity:	10 µg 1 mg
Alternate Names:	Fibroblast interferon, IFN-beta		
Description:	<p>Human IFN-beta is a type I interferon, normally produced by fibroblasts, involved mainly in innate immune response, with antiviral and antiproliferative effects. It is considered first-line therapy for management of MS because of its immunomodulatory properties. It downregulates HLA class II molecules in antigen presenting cells. It also upregulates the expression of PDL-2 inhibitory molecules, which interact with their respective receptors on the T cells and induce apoptosis. It also inhibits proliferation of macrophages and so activation of autoreactive T cells.</p> <p>The IFN-beta gene was cloned from human fibroblasts and altered to substitute Serine for the Cysteine residue found at position 17.</p>		
UniProt ID:	P01574		
Gene ID:	3456		
Source:	<p><i>E. coli</i></p> <p>The IFN-beta gene was cloned from human fibroblasts and altered to substitute Serine for the Cysteine residue found at position 17.</p>		
Molecular Weight:	18.5 kDa (165 aa) monomer		
Formulation:	Lyophilized from a 1 mg/ml solution containing 5% human albumin and 5% mannitol		
Purity:	≥ 98% by SDS-PAGE and RP-HPLC analysis		
Quantitation:	<p>1. RP-HPLC using calibrated IFN-beta as a reference standard</p> <p>2. $E^{0.1\%}_{280nm} = 1.493$</p> <p>This value is calculated by the PC GENE computer analysis program of protein sequences (IntelliGenetics).</p>		
Specific Activity:	3.2 x 10 ⁷ IU/mg, determined in a viral resistance assay (human WISH cell line and VSV virus, or the monkey VERO cell line with EMCV virus)		
N-terminal Sequence:	Ser-Tyr-Asn-Leu-Leu		
Reconstitution:	<p>Centrifuge vial prior to opening. Add sterile distilled water to the vial to fully solubilize the protein to a concentration of 0.25 mg/ml. After complete solubilization of the protein, it can be further diluted to other aqueous solutions.</p>		
Storage & Stability:	<p>Store lyophilized protein at -20°C to -80°C for up to 1 year. Store reconstituted protein at 2-8°C for up to 1 week or in working aliquots at -20°C to -80°C for longer storage.</p> <p>Avoid repeated freeze-thaw cycles.</p>		

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