

Active Recombinant Human IFNB1

Cat. No. IFNB1-533H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human IFNB1 produced in E. coli is approximately 20.0 kDa, a single non-glycosylated polypeptide chain containing 166 amino acids.
Species	Human
Source	E.coli
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.
Form	Lyophilized from a 0.2 μm filtered concentrated solution in PBS, pH 7.4, containing 2% HSA and 3% mannitol.
Bio-activity	Fully biologically active when compared to standard. The specific activity determined by an anti-viral assay is no less than 3.2×10^7 IU/mg.
Molecular Mass	20 kDa
AA Sequence	MSYNLLGFLQ RSSNFQCQKL LWQLNGRLEY CLKDRMNFDI PEEIKQLQQF QKEDAALTIY EMLQNIFAIF RQDSSSTGWN ETIVENLLAN VYHQINHLKT VLEEKLEKED FTRGKLMSSL HLKRYYGRIL HYLKAKEYSH CAWTIVRVEI

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	LRNFYFINRL TGYLRN
Endotoxin	Less than 1EU/μg of rHuIFN-β1b as determined by LAL method.
Purity	>97% by SDS-PAGE and HPLC analyses.
Usage	This material is for research, laboratory or further evaluation purposes. NOT FOR HUMAN USE.
Storage	This lyophilized preparation is stable at 2-8 centigrade, but should be kept at -20 centigrade for long term storage, preferably desiccated. Upon reconstitution, the preparation is stable for up to one week at 2-8 centigrade. For maximal stability, apportion the reconstituted preparation into working aliquots and store at -20 centigrade to -70 centigrade. Avoid repeated freeze/thaw cycles.
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 centigrade. Further dilutions should be made in appropriate buffered solutions.

GENE INFORMATION

Gene Name	IFNB1 interferon, beta 1, fibroblast [Homo sapiens]
Official Symbol	IFNB1
Synonyms	IFNB1; interferon, beta 1, fibroblast; IFNB; interferon beta; IFB; IFF; IFN-beta; fibroblast interferon; MGC96956;
Gene ID	3456

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mRNA Refseq	NM_002176
Protein Refseq	NP_002167
MIM	147640
UniProt ID	P01574
Chromosome Location	9p22
Pathway	Chagas disease (American trypanosomiasis), organism-specific biosystem; Chagas disease (American trypanosomiasis), conserved biosystem; Cytokine Signaling in Immune system, organism-specific biosystem; Cytokine-cytokine receptor interaction, organism-specific biosystem; Cytokine-cytokine receptor interaction, conserved biosystem; Cytokines and Inflammatory Response, organism-specific biosystem; Cytosolic DNA-sensing pathway, organism-specific biosystem;
Function	cytokine activity; interferon-alpha/beta receptor binding; transcription corepressor activity;