

Interferon-beta 1a Recombinant Protein | IFN-beta recombinant protein

Human Interferon-beta 1a Recombinant

CATALOG # AAA76065	HOST Chinese Hamster Ovary Cells (CHO) (Host protein expression may be lot-specific and can be subject to change during production, including bulk orders)
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PRODUCT SYNONYMS

Interferon-beta 1a; Human Interferon-beta 1a Recombinant; ifn; ifnb; interferon beta; ifn-beta; IFN-beta recombinant protein

PRODUCT SPECIFICATIONS

Host	Chinese Hamster Ovary Cells (CHO) (Host protein expression may be lot-specific and can be subject to change during production, including bulk orders)
Purity/Purification	>98%, as determined by SDS-PAGE and HPLC
Form/Format	Recombinant IFN-b 1a was lyophilized from a 0.2 um filtered sodium acetate solution pH 4.8.
Sequence	MTNKCLLQIA LLLCFSTTAL SMSYNLLGFL QRSSNFQCQK LLWQLNGRLE YCLKDRMNFD IPPEIKQLQQ FQKEDAALTI YEMLQNI FAI FRQDSSSTGW NETIVENLLA NVYHQINHLK TVLEEKLEKE DFTRGKLMSS LHLKRYYGRI LHYLKAKEYS HCAWTIVRVE ILRNIFYFINR LTGYLRN
Sequence Length	187
Domain	Four Helix Cytokine Core
Host Note	Optimized DNA sequence encoding Human Interferon beta 1a mature chain was expressed in Chinese Hamster Ovary Cells.
Endotoxin	Endotoxin content was assayed using a LAL gel clot method. Endotoxin level was found to be less than 0.1 ng/ug (1EU/ug).
Reconstitution	A quick spin of the vial followed by reconstitution in distilled water to a concentration not less than 0.1 mg/mL. This solution can then be diluted into other buffers.
Molecular Weight Note	Recombinant human IFN-beta 1a, generated by the proteolytic removal of the signal peptide and propeptide, and has a calculated molecular mass of approximately 19 kDa. Recombinant Interferon beta is a disulfide-linked monomeric protein consisting of 166 amino acid residue subunits, and migrates due to glycosylation as an approximately 22 kDa protein under non-reducing conditions and reducing conditions in SDS-PAGE.
Preparation and Storage	The lyophilized protein is stable for at least 2 years from date of receipt at -20 degree C. Upon reconstitution, this cytokine can be stored in working aliquots at 2 degree - 8 degree C for one month, or at -20 degree C for six months, with a carrier protein without detectable loss of activity. Avoid repeated freeze/thaw cycles.

ADDITIONAL INFORMATION

Related Product Information for IFN-beta recombinant protein	IFN-beta is produced mainly by fibroblasts and some epithelial cell types. The synthesis of IFN-beta can be induced by common inducers of interferons including viruses, double-stranded RNA, and micro-organisms. It is induced also by some cytokines such as TNF and IL1. IFN-beta binds to the same receptor as IFN-alpha. IFN-beta is involved in the regulation of unspecific humoral immune responses and immune responses against viral infections. IFN-beta increases the expression of HLA class 1 antigens and blocks the expression of HLA class 2 antigens stimulated by IFN-gamma. IFN-beta stimulates the activity of NK-cells and hence also antibody-dependent cytotoxicity. IFN-beta shows antiproliferative activity against a number of cell lines established from solid tumors.
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Product Categories/Family for IFN-beta recombinant protein	Cytokines
References	• randomized study of interferon beta-1a, low-dose azathioprine, and low-dose corticosteroids in multiple sclerosis . <i>Multiple Sclerosis</i>, Aug 2009; 15: 965 - 976. • effect of statins on clinical and molecular responses to intramuscular interferon beta-1a .<i>Neurology</i>, Jun 2009; 72: 1989 - 1993. • efficacy of intramuscular interferon beta-1a in patients with clinically isolated syndrome: analysis of subgroups based on new risk criteria .<i>Multiple Sclerosis</i>, Jun 2009; 15: 728 - 734. • subcutaneous interferon beta-1a has a positive effect on cognitive performance in mildly disabled patients with relapsing—remitting multiple sclerosis: 2-year results from the cogimus study .<i>Therapeutic Advances in Neurological Disorders</i>, Mar 2009; 2: 67 - 77. • safety and immunogenicity of a new formulation of interferon β-1a (rebif® new formulation) in a phase iiib study in patients with relapsing multiple sclerosis: 96-week results .<i>Multiple Sclerosis</i>, Feb 2009; 15: 219 - 228.

NCBI AND UNIPROT INFORMATION

NCBI GI #	4504603
NCBI GeneID	3456
NCBI Accession #	NP_002167.1
NCBI GenBank Nucleotide #	NM_002176.2
UniProt Accession #	P01574; Q15943; Q5VWC9
Molecular Weight	22,294 Da
NCBI Official Full Name	interferon beta
UniProt Protein Name	Interferon beta
UniProt Gene Name	IFNB1
UniProt Synonym Gene Names	IFB; IFNB; IFN-beta
UniProt Entry Name	IFNB_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/ifnb1-recombinant-protein-chinese-hamster-ovary-cells/76065>