

Recombinant Human IFN-beta/IFNB1 Protein

Catalog No.: RP02774 **Recombinant**

Sequence Information

Species	Gene ID	Swiss Prot
Human	3456	P01574

Tags

C-His

Synonyms

IFNB1;IFB;IFF;IFN-beta;IFNB

Product Information

Source	Purification
HEK293 cells	> 95% by SDS-PAGE.

Endotoxin

<0.01EU/μg

Formulation

Lyophilized from a 0.22 μm filtered solution of 25mM NaAc PH 5.0

Reconstitution

Centrifuge the vial before opening. Reconstitute to a concentration of 0.1-0.5 mg/mL in sterile distilled water. Avoid vortex or vigorously pipetting the protein. For long term storage, it is recommended to add a carrier protein or stabilizer (e.g. 0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose), and aliquot the reconstituted protein solution to minimize free-thaw cycles.

Contact

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Background

Interferons (IFNs) are natural glycoproteins belonging to the cytokine superfamily and are produced by the cells of the immune system of most vertebrates in response to challenges by foreign agents such as viruses, parasites, and tumor cells. Interferon-beta (IFN beta) is an extracellular protein mediator of host defense and homeostasis. IFN beta has well-established direct antiviral, antiproliferative, and immunomodulatory properties. Recombinant IFN beta is approved for the treatment of relapsing-remitting multiple sclerosis. The recombinant IFN beta protein has the theoretical potential to either treat or causes autoimmune neuromuscular disorders by altering the complicated and delicate balances within the immune system networks. It is the most widely prescribed disease-modifying therapy for multiple sclerosis (MS). Large-scale clinical trials have established the clinical efficacy of IFN beta in reducing relapses and slowing disease progression in relapsing-remitting MS. IFN beta therapy was shown to be comparably beneficial for opticospinal MS (OSMS) and conventional MS in Japanese. IFN beta is effective in reducing relapses in secondary progressive MS and may have a modest effect in slowing disability progression. In addition to the common antiviral activity, IFN beta also induces increased production of the p53 gene product which promotes apoptosis and thus has a therapeutic effect against certain cancers. The role of IFN-beta in bone metabolism could warrant its systematic evaluation as a potential adjunct to therapeutic regimens of osteolytic diseases. Furthermore, IFN beta might play a beneficial role in the development of chronic progressive CNS inflammation.

Basic Information

Description

Recombinant Human IFN-beta/IFNB1 Protein is produced by HEK293 cells expression system. The target protein is expressed with sequence (Met22-Asn187) of human IFN-beta/IFNB1 (Accession #NP_002167.1) fused with no additional amino acid.

Bio-Activity

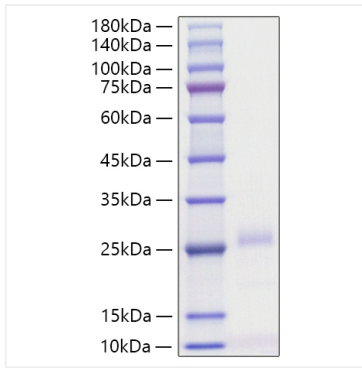
Storage

Store the lyophilized protein at -20°C to -80 °C for 12 months.

After reconstitution, the protein solution is stable at -20 °C for 3 months, at 2-8 °C for up to 1 week.

Avoid repeated freeze/thaw cycles.

Validation Data



Recombinant Human IFN-beta/IFNB1 Protein was determined by SDS-PAGE with Coomassie Blue, showing a band at 25-35 kDa.