

Active Human IFNB1 Reference standard

Cat. No. IFNB1-2H Lot. No. (See product label)

SPECIFICATION

Product Overview	Human IFNB1 is intended for use as the primary biological reference standard in bioassays for glycosylated human IFN- β which is suitable to serve as a bioassay calibrant for measuring the potency of glycosylated IFN- β derived either from human fibroblasts or from CHO cells.
Species	Human
Source	CHO
Description	Interferon-beta is one of the type I interferons produced by fibroblasts in response to stimulation by live or inactivated virus or by double-stranded RNA. It is a cytokine with antiviral, antiproliferative, and immunomodulating activity. 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 IL-1.
Bio-activity	40,000 International Units (IU).
Usage	No attempt should be made to weigh out any portion of the freeze-dried material prior to reconstitution. Dissolve the total contents of the ampoule in 0.5ml of sterile distilled water and transfer to a sterile container. Rinse the ampoule with 0.4ml of sterile distilled water and add to the first solution. Make up the total volume to 1.0ml with sterile distilled water. The final solution will contain IFN- β at a concentration of 40000 International Units (IU) per ml. Use carrier protein where dilution is required. It is

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recommended that initial dilutions, i.e. 1:10, 1:100, are either made in cell culture medium containing - 5%v/v –10%v/v calf serum or in phosphate-buffered saline, pH 7.0-7.4, containing 0.3%v/v bovine casein to prevent adsorption of IFN- β to container surfaces. For economy of use, it is recommended that the solution be sub-divided into several small aliquots and stored at -40°C or below.

Notes

This preparation is not for administration to humans. The preparation contains human and bovine source material. The preparation contains material of human origin, and either the final product or the source materials, from which it is derived, have been tested and found negative for HBsAg, anti-HIV and HCV RNA. The bovine casein used as an excipient was sourced from a country where bovine spongiform encephalopathy (BSE) has not been found. As with all materials of biological origin, this preparation should be regarded as potentially hazardous to health. It should be used and discarded according to your own laboratory's safety procedures. Such safety procedures should include the wearing of protective gloves and avoiding the generation of aerosols. Care should be exercised in opening ampoules or vials, to avoid cuts.

Stability

Reference materials are held at Creative Biomart within assured, temperature-controlled storage facilities and they should be stored on receipt as indicated on the label. Accelerated degradation studies have indicated that this material is suitably stable, when stored at -20°C or below, for the assigned values to remain valid until the material is withdrawn or replaced. These studies have also shown that the material is suitably stable for shipment at ambient temperature without any effect on the assigned values. Once reconstituted, diluted or aliquoted, users should determine the stability of the material according to their own method of preparation, storage and use. Users who have data supporting any deterioration in the characteristics of any reference preparation are encouraged to contact Creative Biomart.

Storage

Unopened ampoules should be stored at -20°C. Please note: because of the inherent

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stability of lyophilized material, Creative Biomart may ship these materials at ambient temperature.

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](#)

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;

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Function

cytokine activity; interferon-alpha/beta receptor binding; transcription corepressor activity;

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