

## Active Recombinant Human IFNB1 protein, His-tagged

Cat. No. IFNB1-3102H Lot. No. (See product label)

### SPECIFICATION

**Product Overview** Active Recombinant Human IFNB1 protein(P01574)(22~187 aa), fused with N-terminal His tag, was expressed in E.coli.

**Species** Human

**Source** E.coli

**ProteinLength** 22-187 aa

**Form** Lyophilized from sterile 20mM Tris, 150mM NaCl, pH8.0, containing 1mM EDTA, 1mM DTT, 0.01% SKL, 5% Trehalose and Proclin300.

**Bio-activity** Interferon Beta (IFN $\beta$ ) is belongs to type I interferons (IFNs) family which a large subgroup of interferon proteins that help regulate the activity of the immune system. The IFN $\beta$  proteins are produced in large quantities by fibroblasts. They have antiviral activity that is involved mainly in innate immune response. Two types of IFN $\beta$  have been described, IFN $\beta$ 1 (IFNB1) and IFN $\beta$ 3 (IFNB3). IFN $\beta$ 1 is used as a treatment for multiple sclerosis as it reduces the relapse rate. To test the effect of IFN $\beta$  on cell apoptosis, A549 cells were seeded into triplicate wells of 96-well plates at a density of 2,000 cells/well and allowed to attach, replaced with serum-free overnight, then the medium was replaced with 5% serum standard DMEM prior to the addition of various concentrations of recombinant human IFN $\beta$ . After incubated for 48h, cells were observed by inverted microscope and cell proliferation was measured by Cell Counting Kit-8 (CCK-8). Briefly, 10  $\mu$ of CCK-8 solution was added to each well

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of the plate, then the absorbance at 450 nm was measured using a microplate reader after incubating the plate for 1-4 hours at 37°C. Apoptosis of A549 cells after incubation with IFN $\beta$  for 48h observed by inverted microscope was shown. Cell viability was assessed by CCK-8(Cell Counting Kit-8 ) assay after incubation with recombinant IFN $\beta$  for 48h. It was obvious that IFN $\beta$  significantly decreased cell viability of A549 cells. The ED50 of recombinant human IFN $\beta$  is 6.4 $\mu$ g/mL.

<b>Molecular Mass</b>	23.7kDa
<b>Endotoxin</b>	<1.0EU per 1 $\mu$ g (determined by the LAL method).
<b>Purity</b>	> 97% as determined by SDS-PAGE.
<b>Storage</b>	Avoid repeated freeze/thaw cycles. Store at -20°C for 12 months. Aliquot and store at -80°C for 12 months.
<b>Reconstitution</b>	Reconstitute in ddH <sub>2</sub> O to a concentration of 0.1-0.5 mg/mL. Do not vortex.

## GENE INFORMATION

<b>Gene Name</b>	IFNB1 interferon, beta 1, fibroblast [ Homo sapiens ]
<b>Official Symbol</b>	IFNB1
<b>Synonyms</b>	IFNB1; interferon, beta 1, fibroblast; IFNB; interferon beta; IFB; IFF; IFN-beta; fibroblast interferon; MGC96956;
<b>Gene ID</b>	3456
<b>mRNA Refseq</b>	NM_002176

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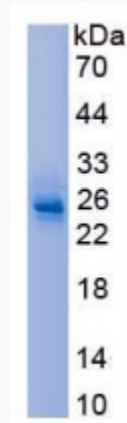
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**Protein Refseq** NP\_002167

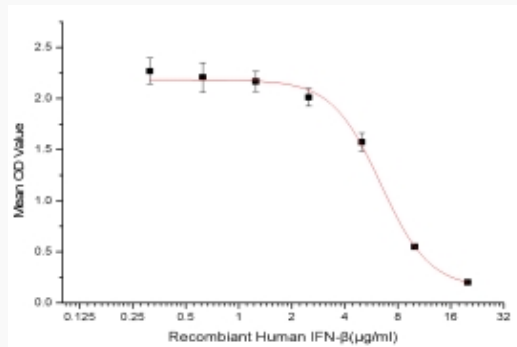
**MIM** 147640

**UniProt ID** P01574

**SDS-PAGE**



**Activity**



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