

## Active Recombinant Dog IFNB1 protein, His-GST-tagged

Cat. No. IFNB1-241D Lot. No. (See product label)

### SPECIFICATION

<b>Product Overview</b>	Active Recombinant Dog IFNB1 protein(B6E116)(21~186 aa), fused with N-terminal His tag and GST tag, was expressed in E.coli.
<b>Species</b>	Dog
<b>Source</b>	E.coli
<b>ProteinLength</b>	21-186 aa
<b>Form</b>	Lyophilized from sterile PBS, pH7.4, containing 0.01% SKL, 1mM DTT, 5% Trehalose and Proclin300.
<b>Bio-activity</b>	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 4,000 cells/well and allowed to attach overnight, then the medium was replaced with various concentrations of recombinant dog IFN $\beta$ diluted with 5% serum standard DMEM. After incubated for 72h, 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 of the plate, then the absorbance at 450 nm

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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 72h observed by inverted microscope was shown. Cell viability was assessed by CCK-8 (Cell Counting Kit-8 ) assay after incubation with recombinant dog IFN $\beta$  for 72h. It was obvious that IFN $\beta$  significantly decreased cell viability of A549 cells. The EC50 of recombinant dog IFN $\beta$  is 1.86  $\mu$ g/ml.

<b>Molecular Mass</b>	50.1kDa
<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 10mM PBS (pH7.4) to a concentration of 0.1-1.0 mg/mL. Do not vortex.

## GENE INFORMATION

<b>Gene Name</b>	IFNB1 interferon, beta 1, fibroblast [ <i>Canis lupus familiaris</i> ]
<b>Official Symbol</b>	IFNB1
<b>Synonyms</b>	IFNB1; interferon, beta 1, fibroblast; interferon beta;
<b>Gene ID</b>	481558
<b>mRNA Refseq</b>	NM_001135787

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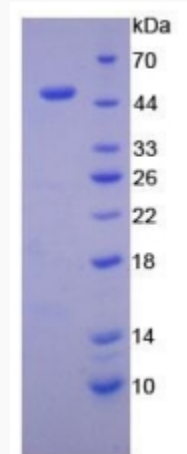
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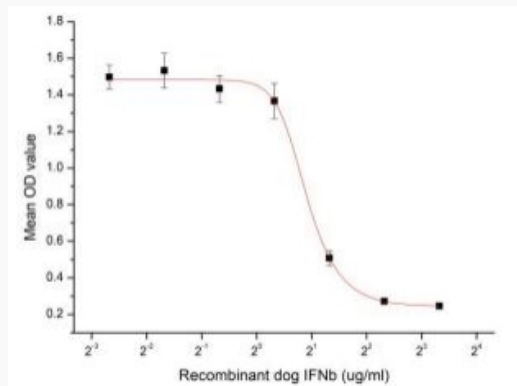
Protein Refseq

NP\_001129259

SDS-PAGE



Activity



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