Ifnb1
Recombinant Mouse Interferon beta (Fc Tag)

Catalog No.	CRM682A-Fc CRM682B-Fc	**Quantity:**	20 µg 100 µg
Alternate Names:	Interferon beta, IFN-beta		
Description:	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 extra-cellular 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 cause 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). In addition to the common antiviral activity, IFN beta also induces increased production of the p53 gene product which promotes apoptosis, and thus has 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 a chronic progressive CNS inflammation.		
UniProt ID:	P01575		
Protein Construction:	A DNA sequence encoding the extracellular domain of mouse IFNB1 (Met 1-Asn 182) was fused with the Fc region of human IgG1 at the C-terminus.		
Source:	HEK293 Cells		
Formulation:	Lyophilized from sterile PBS, pH 7.4 Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization.		
Molecular Weight:	The secreted rmIFNB1/Fc is a disulfide-linked homodimer. The reduced monomer consists of 402 aa with a predicted MW of 46.7 kDa and migrates at ~58 kDa in SDS-PAGE under reducing conditions, due to glycosylation.		
Purity:	> 92 % as determined by SDS-PAGE		
Endotoxin Level:	< 1.0 EU per µg of the protein as determined by the LAL method		
Biological Activity:	Measured in antiviral assay using L929 cells infected with vesicular stomatitisvirus (VSV). The ED50 for this effect is typically 10-50 pg/mL.		
Predicted N-terminal:	Ile 22		
Reconstitution:	**Centrifuge vial prior to opening.** Add sterile distilled water to a concentration of 0.1 mg/mL and gently pipette the solution up and down the sides of the vial. **DO NOT VORTEX**. Allow several minutes for complete reconstitution.		

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Storage & Stability: Stable for up to 1 year from date of receipt at -20°C to -80°C
After reconstitution, store working aliquots at -20°C to -80°C.
Avoid repeated freeze-thaw cycles.

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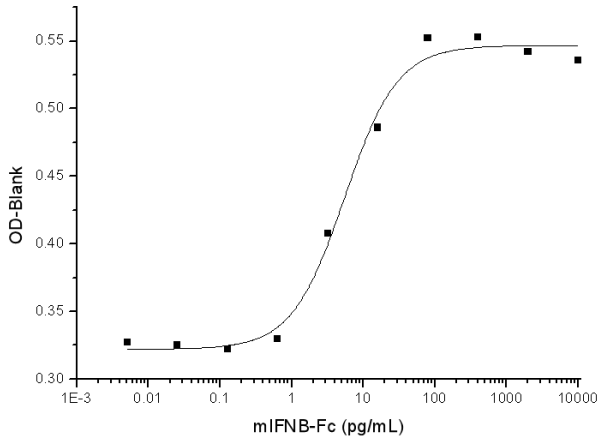
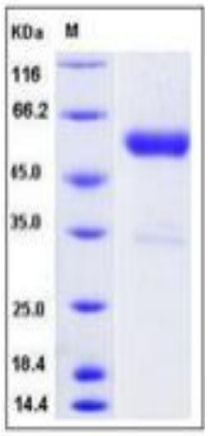


SDS-PAGE



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