

IFNB1

Recombinant Mouse Interferon beta

Catalog No.	CR2039	Quantity:	100 µl
Alternate Names:	Inteferon beta 1 fibroblast, IFN-beta, IFNB, IFB		
Description:	Interferon beta (IFN-b) belongs to the interferon family of signaling proteins, which are released as part of the innate immune response to pathogens. IFN-b belongs to the type I class of interferons, which are important for defense against viral infections. In addition, type I interferons are involved in cell differentiation and anti-tumor defenses. Following secretion in response to a pathogen, type I interferons bind a homologous receptor complex and induce transcription of genes such as those encoding inflammatory cytokines and chemokines. Overactivation of type I interferon secretion is linked to autoimmune diseases. Mice deficient for the IFN-beta gene display several phenotypes including defects in B cell maturation and increased susceptibility to viral infection.		
Concentration:	> 1 x 10 ⁶ units/ml, lot specific		
Gene ID:	15977		
UniProt ID:	P01575		
Source:	<i>E. coli</i>		
Molecular Weight:	19.6 kDa		
Formulation:	20 mM HEPES, pH 6.0, 0.5 M NaCl, 6% Glycerol.		
Purity:	> 95% by SDS-PAGE		
Endotoxin Level:	<1 EU/µg IFN-beta		
Purification:	Combination of ion exchange, hydrophobic interaction, and size exclusion chromatography.		
Biological Activity:	EC ₅₀ ~ 2.5 U/ml, determined in a cytopathic effect inhibition assay using mouse L929 cells with encephalomyocarditis virus (EMCV). Activity units were determined relative to a lab standard of mouse IFN-beta which was calibrated to the NIH Mouse IFN-beta standard.		
Specific Activity:	~ 1.0 x 10 ⁷ units/mg Engineered disulfide bond greatly increases the specific activity of this rmIFN-beta.		
Storage & Stability:	Upon receipt store product at -80°C for retention of full activity. After initial thaw (in cold water, until just thawed), refreeze in working aliquots. Refreeze on dry ice or in a dry ice/alcohol bath. Further dilution of the product should be in buffers containing protein such as 0.1% bovine serum albumin (BSA). Avoid repeated freeze-thaw cycles.		

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