

Catalog Number: HZ-1298

Data Sheet



Animal Component-Free

Human cell expressed

Tag-Free

Endotoxin Free

Product Description

Animal-free Recombinant Human IFN beta 1/ IFN beta 1a), is a member of type I family of interferons. It binds to a heterodimeric receptor, known as the IFN a / β receptor (IFNAR) resulting in activation of a number of Jak/ STAT proteins. Activation of this signaling pathway results in activation of genes that inhibit viral infection and regulate MHC class I antigens. It is primarily produced by fibroblasts and monocytes. In addition to inhibiting viral infection, IFN beta is also involved in regulating and activating immune response against bacteria, parasite and tumor cells. Multiple sclerosis is characterized by a deficiency of IFN beta 1. An injectable form of IFN beta 1 is used for MS treatment. **Alternative Names**

Fibroblast interferon, IFB, IFF, IFN beta, IFNB, IFNB1, Interferon beta, interferon, beta 1, fibroblast Source

Human Embryonic Kidney cells (HEK293). HEK293-derived IFN beta protein

Specifications					
Test	Method	Specification			
Activity	Dose dependent inhibition of proliferation of TF-1 cells (human erythroleukemic indicator cell line)	0.015-0.08 ng/mL EC50			
Molecular Mass	SDS-PAGE	21 to 24 kDa reduced, 20 to 23 and 38 to 42 non-reduced, glycosylated			
Purity	Purity SDS-PAGE >95%				
Endotoxin	LAL	<1 EU/ µ g			

Activity Data		SDS-PAGE	
Recombinant IFN beta	Recombinant human IFN beta (HZ-1298) dose- dependently inhibits growth of the TF-1 cell line. Cell number was quantitatively assessed by PrestoBlue® Cell Viability Reagent. TF-1 cells were treated with increasing concentrations of recombinant IFN beta for 72 hours. The EC50 was determined using a 4- parameter non-linear regression model. The EC50 range is 0.015-0.08 ng/mL.	kDa Reducing Non-Reducing 235 170 130 93 70 53 42 30 23 18 14 10 10	

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Preparation					
Shipping Temperature	ambient temperature				
Formulation	Sodium Acetate pH 4.8 + 150mM NaCl + CHAPS, See Certificate of Analysis for details				
Reconstitution	Briefly centrifuge the vial before opening. It is recommended to reconstitute the protein in sterile water.				

	Product Form	Temperature Conditions	Storage Time (From Date of Receipt)	
	Lyophilized	-20°C to -80°C	Until Expiry Date	
Stability and Storage	Lyophilized	Room Temperature	2 weeks	
	Reconstituted as per CofA	-20°C to -80°C	6 months	
	Reconstituted as per CofA	4°C	1 week	
	Avoid repeated freeze-thaw cycles.			

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