Catalog Number: HZ-1298

Data Sheet

HumanKine® IFN beta (Recombinant Human)

Animal Component-Free	Human cell expressed	Tag-Free	Endotoxin Free

Product Description

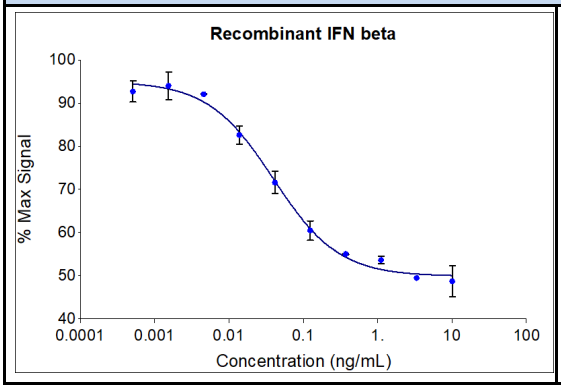
Animal-free Recombinant Human IFN beta (IFN beta 1/ IFN beta 1a), is a member of type I family of interferons. It binds to a heterodimeric receptor, known as the IFNα/β receptor (IFNAR) resulting in activation of a number of Jak/ STAT proteins. Activation of this signaling pathway results in activation 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
Species Reactivity	human,mouse

Specifications

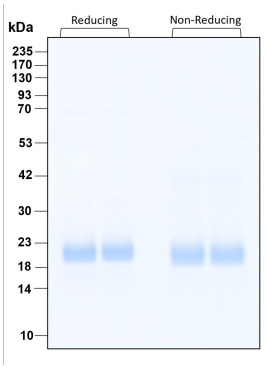
Test	Method	Specification
Activity	Dose dependent inhibition of proliferation of TF-1 cells (human erythroleukemic indicator cell line)	0.015-0.08 ng/mL EC50
Molecular Mass	SDS-PAGE	21 to 24 kDa reduced, 20 to 23 and 38 to 42 non-reduced, glycosylated
Purity	SDS-PAGE	>95%
Endotoxin	LAL	<1 EU/μg

Activity Data



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.

SDS-PAGE



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Document #: FR-QA118-101 Rev 0
Data Sheet Version #: 1

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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)
Stability and Storage	Lyophilized	-20°C to -80°C	Until Expiry Date
	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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