Epoto Biotech

南京艾璞拓生物科技有限公司

Recombinant Human IFN-beta, Tag Free

Catalog Number: HF-2030

General Information

Synonyms	Fibroblast interferon; IFB; IFBIFNB; IFF; IFNB; IFNB1; IFNbeta; IFN-beta; interferon beta
Accession #	P01574
Source	Human embryonic kidney cell, HEK293-derived human IFN-beta protein
	Met22-Asn187
Predicted Moleucular weight	20.0 kDa

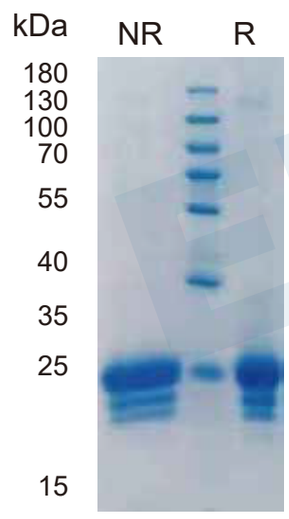
Components and Storage

Formulation	Solution protein.
	Dissolved in sterile PBS buffer.
	This solution can be diluted into other aqueous buffers. Centrifuge the vial prior to opening.
Storage and Stability	Avoid repeated freeze-thaw cycles.
	It is recommended that the protein be aliquoted for optimal storage.
	12 months from date of receipt, -20 to -70 ° C as supplied.
Shipping	Shipping with dry ice

Quality

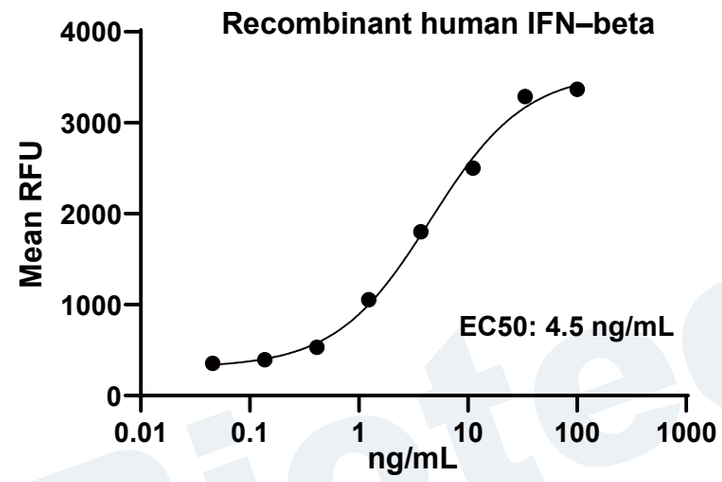
Purity	> 95%, determined by SDS-PAGE
Endotoxin Level	<0.010 EU per 1 ug of the protein by the LAL method
Activity	Measured in anti-viral assays using HeLa human cervical epithelial carcinoma cells infected with encephalomyocarditis
	(EMC) virus.The EC50 for this effect is 1-10 ng/mL.

SDS-PAGE



4 ug/lane protein was resolved with SDS-PAGE under non-reducing (NR) and reducing (R) conditions and visualized by Coomassie Blue staining.

Bioactivity



Recombinant human IFN-beta (Catalog # HF- 2030) stimulates cell proliferation of the HeLa human cervical epithelial carcinoma cells

Background

Interferon beta (IFN-beta) , also known as fibroblast IFN, is a secreted, approximately 22 kDa member of the type I interferon family of molecules (1). Mature human IFN-beta shares 47% and 46% amino acid sequence identity with the mouse and rat proteins, respectively. Fibroblasts are the major producers of IFN-beta, but it can also be produced by dendritic cells, macrophages, and endothelial cells in response to pathogen exposure (2). It is trans -criptionally regulated by TRAF3, IRF3, IRF7, and NF-kappa B (3). Following secretion, IFN-beta signals through the heterodimeric IFN-alpha / beta Receptor and activates the JAK/STAT signaling pathway (4-7). IFN-beta -deficient mice show increased susceptibility to experimental autoimmune encephalomyelitis (EAE), a disease model of human multiple sclerosis (MS) (8). Furthermore, IFN-beta has been shown to suppress the Th17 cell response in both MS and EAE and has commonly been used as a treatment for MS (9-13).

Reference

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