Recombinant Human IFN-y Tag-Free GMP

Physical Appearance	Sterile Filtered White lyophilized (freeze-dried) powder.				
Gene ID	15978				
Gene ib					
Description	Interferon-gamma (IFN-γ), also known as Type II interferon or immune interferon, is a dimerized soluble cytokine that is critical for innate and adaptive immunity against viral, some bacterial and protozoal infections. It is produced primarily by CD4 and CD8 T lymphocytes as well as natural killer (NK) and natural killer T(NKT) cells. The primary role for IFN-γ is the activation of macrophages to increase phagocyto- sis, tumoricidal properties, and intracellular killing of pathogens. IFN-γ also increases expression of MHC antigens by macrophages and this facilitates antigen presentation to T cells. The recombinant Interferon-gamma s a 16.9 kDa protein consisting of 144 amino acid residues.				
Catalog Number	GE04.1/GE04.2				
Volumn	100µg/200µg				
Source	E. coli				
Molecular Weight	Approximately 16.9 kDa, 144 amino acids				
AA Sequence	HGTVIESLESLNNYFNSSGIDVEEKSLFLDIWRNWQKDGDMKILQSQIISFYLRLFEVLKDNQAISNNISVIESHLITTFFSNSKAKKDAFMSIAKFEVNNPQVQ RQAFNELIRVVHQLLPESSLRKRKRSRC				
Purity (HPLC)	> 98%				
Purity (SDS-PAGE)	> 98%				
Biological Activity	Fully biologically active when compared to standard substance. The ED50 as measured in anti-viral assays using human HeLa cells infected with encephalomyocarditis (EMC) virus is 0.15~0.80 ng/ml.				
Host Cell DNA	<0.02 ng/µg of protein tested by DNA Fluorescent Staining method.				
Host Cell Protein	<0.5 ng/µg of protein tested by ELISA.				
Formulation	Lyophilized from a 0.2 μ m filtered concentrated solution in PBS, pH 7.4, with 5% Trehalose, BSA-free.				
Sterility	Negative				
Endotoxin	< 0.1EU/µg as determined by LAL gel-clot method.				
Mycoplasma	Negative				
Reconstitution	 Before use this product, please read the direction below carefully. 1. This vial must be briefly centrifuged prior to opening to bring the contents to the bottom. 2. Reconstitute in a sterile aqueous buffer to an appropriate concentration. 3. Stock solutions should be apportioned into working aliquots and stored at ≤ -20 °C. Further dilutions should be made in appropriate buffered solutions. 				
Stability & Storage	For long term storage, the product should be stored ≤-20°C. Please avoid repeated freeze-thaw cycles after reconstitution. 1. At least 24 months from date of receipt, ≤-20 as supplied; 2. 1 month, 2 to 8 °C under sterile conditions after reconstitution; 3. 3 months, -20 to -70 °C under sterile conditions after reconstitution.				
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended.				

DATA



Bioactivity of Recombinant Human IFN-γ

HPLC

HPLC analysis of Recombinant Human IFN- $\gamma.$ The major peak corresponds to the calculated purity of >98%.



Bioactivity of Recombinant Human IFN- γ SDS-PAGE

 $2\,\mu g/lane$ of Recombinant Human Recombinant IFN- γ was resolved with

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SDS-PAGE under reducing (R) and non-reducing (N) conditions and visualized by Coomassie® Blue staining, showing R and NR bands at 16.9kDa.



Bioactivity of Recombinant Human IFN-γ

Measured in anti-viral assays using HeLa human cervical epithelial carcinoma cells infected with encephalomyocarditis (EMC) virus. The ED₅₀ as determined is 0.15~0.80 ng/ml, approximately corresponding to a specific activity of 2 x 10⁴ IU/µg, which is calibrated against human IFN-gamma Standard (NIBSC code: 87/586). Specific activity is for reference purposes only and is not routinely tested.

CONTENTS

Product	Cat. No.	Amount	Storage	Shelf life
Recombinant Human IFN-γ (GMP-Grade)	GE04.1 GE04.2	100µg 200µg	≤-20°C	24 months

LIMITED WARRANTY

BETAGENE™ Genetic and/or its affiliate(s) warrant their products as set forth in the BETAGENE Genetic' General Terms and Conditions of Sale. If you have any questions, please contact our staff at SALES@betagene.com.

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