HUMANZYME

PRODUCT DATA SHEET
A XKine™ Product

Recombinant Human IFN gamma (Immune Interferon gamma)

Product Description

IFN-γ is an acid-labile interferon produced by CD4 and CD8 T lymphocytes as well as activated NK cells. IFN-γ receptors are present in most immune cells, which respond to IFN-γ signaling by increasing the surface expression of class I MHC proteins. This promotes the presentation of antigen to T-helper (CD4+) cells. IFN-γ signaling in antigen-presenting cells, and antigen-recognizing B and T lymphocytes, regulates the antigen-specific phases of the immune response. Additionally, IFN-γ stimulates a number of lymphoid cell functions, including the anti-microbial and anti-tumor responses of macrophages, NK cells, and neutrophils. Human IFN-γ is species-specific and is biologically active only in human and primate cells. Recombinant Human IFN-γ is a 16.8 kDa protein containing 144 amino acid residues.

Typical Specifications

Species	Human
Expression	E. coli Cell Expressed
Activity	Assay 1:Typically 5.0-10.0 ng/ml ED50 Assay 2: Typically ≤ 0.05 ng/ml ED50
Purity	≥98%
Endotoxin	<1.0 EU/μg
Molecular Mass	16.8 kDa
Formulation	10 mM Sodium Phosphate, pH 7.4
Country of Origin	USA

Purity Confirmation

This was determined by SDS-PAGE gel and HPLC analysis.

Activity Assay

Assay#1: Determined by its ability to induce apoptosis in HeLa cells.

Assay#2: Determined by a cytotoxicity assay using HT-29 cells.

AA Sequence

MQDPYVKEAE NLKKYFNAGH SDVADNGTLF
LGILKNWKEE SDRKIMQSQI VSFYFKLFKN
FKDDQSIQKS VETIKEDMNV KFFNSNKKKR
DDFEKLTNYS VTDLNVQRKA IHELIQVMAE
LSPAAKTGKR KRSQMLFQGR RASQ

Reconstitution Buffer

Centrifuge the vial prior to opening. Reconstitute in water to a concentration of 0.1-1.0 mg/ml. Do not vortex.

Storage

This solution can be stored at 2-8°C for up to 1 week. For extended storage, it is recommended to further dilute in a buffer containing a carrier protein (example 0.1% HSA) and store in working aliquots at -20°C to -80°C.

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