

Recombinant Human Interferon-gamma

#R00155

Size: 100 µg/500 µg

Stability & Storage

- Use a manual defrost freezer and avoid repeated freeze-thaw cycles.
- 12 months from date of receipt, -20 to -70 °C as supplied.
 - 1 month, 2 to 8 °C under sterile conditions after reconstitution.
 - 3 months, -20 to -70 °C under sterile conditions after reconstitution.



Warning: This product is intended for scientific research only. It is not to be used for medical or diagnostic procedures in humans or animals, nor as a food, cosmetic, or household product.

Background

Interferon-gamma (IFN-γ), also known as Type II interferon or immune interferon, is a cytokine produced primarily by T-lymphocytes and natural killer cells. The protein shares no significant homology with IFN-β or the various IFN-α family proteins. Mature IFN-γ exists as noncovalently-linked homodimers. Human IFN-γ is highly species specific and is biologically active only in human and primate cells. IFN-γ was originally characterized based on its antiviral activities. The protein also exerts antiproliferative, immunoregulatory and proinflammatory activities and is thus important in host defense mechanisms. IFN-γ induces the production of cytokines, upregulates the expression of class I and II MHC antigens, Fc receptor and leukocyte adhesion molecules. It modulates macrophage effector functions, influences isotype switching and potentiates the secretion of immunoglobulins by B cells. IFN-γ also augments TH1 cell expansion and may be required for

TH1 cell differentiation.

AA Sequence

MQDPYVKEAENLKKYFNAGHSDVADNGTLFLGILKN
WKEESDRKIMQSQIVSFYFKLFKNFKDDQSIQKSVETI
KEDMNVKFFNSNKKKRDDFEKLTNYSVTDLNVQRKAI
HELIQVMAELSPAAGTGKRKRSQMLFRGRRASQ

Reconstitution

We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in sterile distilled water or aqueous buffer containing 0.1 % BSA to a concentration of 0.1-1.0 mg/mL. Stock solutions should be apportioned into working aliquots and stored at ≤ -20 °C. Further dilutions should be made in appropriate buffered solutions.

Product Specification

Accession	P01579
GeneID	3458
Species	Human
Source	Escherichia coli.
Molecular Weight	Approximately 16.9 kDa, a single non-glycosylated polypeptide chain containing 144 amino acids.
Purity	≥95 % by SDS-PAGE analysis, ≥90 % by HPLC analysis.
Biological Activity	Fully biologically active when compared to standard. The ED ₅₀ as measured in anti-viral assays using human HeLa cells infected with encephalomyocarditis (EMC) virus is 0.15-0.80 ng/ml.
Physical Appearance	Sterile Filtered White Lyophilized (freeze-dried) powder.

Formulation	Lyophilized from a 0.2 µm filtered concentrated solution in PBS, pH 7.4.
Endotoxin	Less than 1 EU/µg of rHuIFN-γ as determined by LAL method.