

Recombinant Rat IFN-gamma

Information

Gene ID	
Accession #	
Alternate Names	
Source	Escherichia coli.
M.Wt	Approximately 15.5 kDa, a single non-glycosylated polypeptide chain containing 134 amino acids.
AA Sequence	QGTLESLES LKNYFNSSSM DAMEGKSLLL DIWRNWQKDG NTKILESQII SFYLRLFEVL KDNQAISNNI SVIESHLITN FFSNSKAKKD AFMSIAKFEV NNPQIQHKAV NELIRVIHQL SPESSLRKRK RSRC
Appearance	Sterile Filtered White lyophilized (freeze-dried) powder.
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
Formulation	Lyophilized from a 0.2 µm filtered concentrated solution in 1 × PBS, pH 7.4, 1 mM DTT, 5 % Trehalose and 0.05 % Tween-80.
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.
Biological Activity	Fully biologically active when compared to standard. The ED50 as determined by an anti-viral assay using murine L929 cells infected with encephalomyocarditis (EMC) virus is less than 0.1 ng/ml, corresponding to a specific activity of > 1.0 × 10 ⁷ IU/mg.
Shipping Condition	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.
Handling	Centrifuge the vial prior to opening.
Usage	For Research Use Only! Not to be used in humans.

Components and Storage

Components	100µg	500µg	
Recombinant Human Ciliary Neurotrophic Factor	100µg	500µg	

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- 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

Quality Control

Purity	> 97 % by SDS-PAGE and HPLC analyses.
Endotoxin	Less than 0.1 EU/μg of rRtIFN-γ as determined by LAL method.

Description

Rat Interferon-gamma 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. It shares high sequence identity with murine IFN-γ (86 %). 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. Additionally, IFN-γ augments TH1 cell expansion and may be required for TH1 cell differentiation.

Reference

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