

ChemWhat Technical Data Sheet (TDS)

| | |
|---------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Catalog Number: | 126-06 |
| Source: | <i>Escherichia coli</i> . |
| Molecular Weight: | Approximately 15.5 kDa, a single non-glycosylated polypeptide chain containing 133 amino acids. |
| Quantity: | 20 μ g/100 μ g/1000 μ g |
| AA Sequence: | HGTVIESLES LNNYFNSSGI DVEEKSLFLD IWRNWQKDG D MKILQSQIIS FYLRLFEVLK DNQAISNNIS VIESHLITTF FSNSKAKKDA FMSIAKFEVN NPQVQRQAFN ELIRVVHQLL PESSLRKRKR SRC |
| Purity: | > 96 % by SDS-PAGE and HPLC analyses. |
| Biological Activity: | Fully biologically active when compared to standard. The ED ₅₀ as determined by an anti-viral assay using murine L929 cells infected with encephalomyocarditis (EMC) virus is less than 0.8 ng/ml, corresponding to a specific activity of > 1.3 \times 10 ⁶ IU/mg. |
| Physical Appearance: | Sterile Filtered White lyophilized (freeze-dried) powder. |
| Formulation: | Lyophilized from a 0.2 μ m filtered solution in PBS, pH 7.4, containing 5 % trehalose. |
| Endotoxin: | Less than 1 EU/ μ g of rMuIFN- γ as determined by LAL method. |
| 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 \leq -20 $^{\circ}$ C . Further dilutions should be made in appropriate buffered solutions. |
| Shipping: | The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. |
| Stability & Storage: | Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none">● 12 months from date of receipt, -20 to -70 $^{\circ}$C as supplied.● 1 month, 2 to 8 $^{\circ}$C under sterile conditions after reconstitution.● 3 months, -20 to -70 $^{\circ}$C under sterile conditions after reconstitution. |
| Usage: | ChemWhat Limited in UK offers this branded product for research, development or further evaluation purposes. NOT FOR HUMAN USE. |

Murine 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 rat 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.