

ChemWhat Technical Data Sheet (TDS)

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| Catalog Number: | 106-01 |
| Source: | <i>Escherichia coli</i> . |
| Molecular Weight: | Approximately 19.5 kDa, a single non-glycosylated polypeptide chain containing 167 amino acids. |
| Quantity: | 20 μ g/100 μ g/1000 μ g |
| AA Sequence: | MCDLPETHSL DNRRTLMLLA QMSRISPSSC LMDRHDFGFP QEEFDGNQFQ KAPAVISLHE LIQQIFNLFT TKDSSAAWDE DLLDKFCTEL YQQLNDLEAC VMQEERVGET PLMNADSILA VKKYFRITL YLTEKKYSPC AWEVVRAEIM RSLSLSTNLQ ERLRRKE |
| Purity: | > 97 % by SDS-PAGE and HPLC analyses. |
| Biological Activity: | Fully biologically active when compared to standard. The specific activity determined by an anti-viral assay is no less than 1.0×10^8 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 3 % Mannitol, 5 % Trehalose, 0.05 % Tween-80. |
| Endotoxin: | Less than 0.1 EU/ μ g of rHuIFN- α 1a 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 ≤ -20 °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 °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. |
| Usage: | ChemWhat Limited in UK offers this branded product for research, development or further evaluation purposes. NOT FOR HUMAN USE. |

Human Interferon-alpha1a

Interferon alpha-1, also named interferon alpha-D, is belonging to the type I interferon family and is encoded by the IFNA1 gene in humans. Interferon alpha-1 is expressed in peripheral blood leukocytes and lymphoblastoid cells. IFN α -1 contains four highly conserved cysteine residues which form two disulfide bonds, one of which is necessary for biological activity. It plays an important role in inducing non-specific resistance against a broad range of viral infections, and also affects cell proliferation and modulates immune responses.

IFN α -1a and IFN α -1b are two forms of interferon alpha-1 except for the substitution of alanine for valine at position 137. Interferon-alpha represents a group of related but distinct proteins that share over 95 % amino acid sequence homology.