

# **Recombinant Human Interferon-alpha1a (Human IFN-α1a)**

### **Product Information**

| Product Name   | Cat#      | Size  |
|--|-----------|-------|
| Recombinant Human Interferon-alpha1a (Human IFN-α1a) | 91201ES60 | 100µg |
|  | 91201ES76 | 500µg |

#### **Product Description**

IFNA1, also known as IFN-alpha and IFNA, belongs to the alpha/beta interferon family. Interferons(IFNs) are proteins made and released by host cells in response to the presence of pathogens such as viruses, bacteria, parasites, or tumor cells. They belong to the large class of glycoproteins known as cytokines. Leukocyte interferon is produced predominantly by B lymphocytes. Immune interferon is produced by mitogen- or antigen-stimulated T lymphocytes. IFNA1 is produced by macrophages and has antiviral activities.IFNs stimulate the production of two enzymes: a protein kinase and an oligoadenylate synthetase. They allow for communication between cells to trigger the protective defenses of the immune system that eradicate pathogens or tumors. IFNs can activate immune cells, such as natural killer cells and macrophages; they increase recognition of infection or tumor cells by up-regulating antigen presentation to T lymphocytes, and they also increase the ability of uninfected host cells to resist new infection by the virus.

#### **Product Properties**

| Synonyms                   | IFN-alpha 1a protein   |  |  |
|----------------------------|--|--|--|
| Accession                  | P01562   |  |  |
| GeneID                     | 3439   |  |  |
| Source                     | E.coli-derived Human IFN-α1a protein,Cys24-Glu189.   |  |  |
| Molecular Weight           | Approximately 19.5 kDa.  |  |  |
| AA Sequence                | MCDLPETHSL DNRRTLMLLA QMSRISPSSC LMDRHDFGFP QEEFDGNQFQ KAPAISVLHE  |  |  |
|                            | LIQQIFNLFT TKDSSAAWDE DLLDKFCTEL YQQLNDLEAC VMQEERVGET PLMNADSILA  |  |  |
|                            | VKKYFRRITL YLTEKKYSPC AWEVVRAEIM RSLSLSTNLQ ERLRRKE  |  |  |
| Tag                        | None   |  |  |
| Physical Appearance        | Sterile Filtered White lyophilized (freeze-dried) powder.  |  |  |
| Purity                     | > 97 % by SDS-PAGE and HPLC analyses.  |  |  |
| <b>Biological Activity</b> | Fully biologically active when compared to standard. The specific activity determined by an anti-viral   |  |  |
|                            | assay is no less than $1.0 \times 10^8$ IU/mg.   |  |  |
| Endotoxin                  | < 0.1 EU per 1µg of the protein by the LAL method.   |  |  |
| Formulation                | Lyophilized from a 0.2 µm filtered solution in PBS, pH 7.4, containing 3 % Mannitol, 5 % Trehalose,      |  |  |
|                            | 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 $\leq$ -20 °C.  |  |  |
|                            | Further dilutions should be made in appropriate buffered solutions.                                      |  |  |

#### **Shipping and Storage**



The products are shipped with ice pack and can be stored at -20°C to -80°C for 1 year.

Recommend to aliquot the protein into smaller quantities when first used and avoid repeated freeze-thaw cycles.

## Cautions

1. Avoid repeated freeze-thaw cycle



2. For your safety and health, please wear lab coats and disposable gloves for operation.

3. For research use only.