

## Recombinant Human Interferon Alfa-2a

Catalog Number	Size
AG118-20	20µg
AG118-100	100µg

### *Specifications and Use*

<b>Description</b>	Recombinant human IFN $\alpha$ -2a produced in Yeast is a single, non-glycosylated, polypeptide chain containing 165 amino acids, two pairs of disulfide bonds and having a molecular mass of approximately 19.2kDa.
<b>Source</b>	Yeast.
<b>Molecular Mass</b>	Approximately 19.2kDa.
<b>Purity</b>	$\geq 97\%$ , as determined by SDS-PAGE and HPLC method.
<b>Endotoxin Level</b>	$\leq 1\text{EU}/\mu\text{g}$ , determined by the LAL method.
<b>Biological Activity</b>	Bioactivity is detected using cytopathic effect inhibition assay method, WISH cell (a heteroploid human amnion cell line) as dependent cell strain. The specific activity shall be not less than $2.0 \times 10^8$ IU/mg.
<b>Formulation</b>	Lyophilized from a 0.2µm filtered solution in 20mM Phosphate buffer.
<b>Reconstitution</b>	It is recommended that sterile ddH <sub>2</sub> O containing at least 0.1% human serum albumin or bovine serum albumin be added to the vial to prepare a stock solution of not less than 1µg/ml of the cytokine.
<b>Storage</b>	Lyophilized samples are stable for greater than six months from date of receipt at -20°C to -70°C. The reconstituted samples can be stored under sterile conditions at 2- 8°C for one month or at -20°C to -70°C for three months without detectable loss of activity. <b>Avoid repeated freeze-thaw cycles.</b>

### *Human Interferon Alfa-2a*

Human Interferon Alfa-2a is a single polypeptide chain of 165 amino acids residues, containing 4 Cys to form two disulfide bonds at positions of Cys 1- Cys 98 and Cys 29-Cys 138, and it has a molecular mass of approximately 19.2kD. IFN can exert certain cell activities through binding to specific cell surface receptors, as firstly induce to develop special proteins, such as protein kinase and 2', 5'-oligo polyadenylic acid synthase etc. The unique character of two enzymes is that they can be activated respectively by double chains RNA to produce the effect of self-phosphorylation. INF can also enhance phagocytosis activity of macrophage and special toxicity of lymphocyte to target cells to cause immunoregulation. Its biological effects contains: (1) Anti-virus: INF  $\alpha$  has broad-spectrum anti-virus effect; (2) Cytostatic effect to certain cells; (3) Immunoregulation effect: accelerate the expression of MHC antigen by most cell and active NK cell and CTL. (4) Repress and kill tumor cells: INF- $\alpha$  kill the tumor cells through accelerating the immunological function and enhancing the killing ability of macrophage, NK and CTL.

**FOR RESEARCH USE ONLY**

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