

Recombinant Human Interferon, Alpha 2

Cat. No. IFNA2-59H Lot. No. (See product label)

SPECIFICATION

Product Overview	Recombinant human intefferon α 2a (rhIFN α 2a) produced in <i>Saccharomyces cerevisiae</i> is a non-glycosylated polypeptide chain containing 165 amino acids and having a molecular mass of 19.2kDa. It is manufactured through Chromatography in the GMP facilities.
Species	Human
Source	S.Cerevisiae
Description	At least 23 different variants of Interferon-alpha are known. The individual proteins have molecular masses between 19-26 kDa and consist of proteins with lengths of 156-166 and 172 amino acids. All IFN-alpha subtypes possess a common conserved sequence region between amino acid positions 115-151 while the amino-terminal ends are variable. Many IFN-alpha subtypes differ in their sequences at only one or two positions. Naturally occurring variants also include proteins truncated by 10 amino acids at the carboxyl-terminal end.
Amino Acid Sequence	The sequence of the first fifteen N-terminal amino acid residues was determined and was found to be Cys-Asp-Leu-Pro-Gln-Thr-His-Ser-Leu-Gly-Ser-Arg-Arg-Thr-Leu.
Physical Appearance	Sterile Filtered White lyophilized (freeze-dried) powder, or Sterile filtered liquid according to the client's demands.
Purity	Greater than 97.0% as determined by: (a) Analysis by SEC-HPLC. (b) Analysis by SDS-PAGE.

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Formulation	Lyophilized or liquid containing Sodium phosphate dibasic, sodium phosphate monobasic and HSA, pH7.0±0.5.
Solubility	It is recommended to reconstitute the lyophilized rhIFN-α2a in water for injection not less than 100g/ml, which can then be further diluted to other aqueous solutions.
Protein Content	Before adding the carrier HSA protein, rhIFN-α2a Protein quantitation was carried out by Lowry method. rhIFN-α2a protein concentration is usually between 1.5 ~2.0mg/mL according to the client's demands.
Endotoxin	Less than 1.0 EU/mg of rh-IFN-α 2a concentrated solution (LAL test).
Biological Activity	The specific activity, determined by the dose-dependent proliferation of WISH (heteroploid human amnion cell line) in presence of VSV (vesicular stomatitis virus), was found to be no less than 1.8×10^8 IU/ mL.
Residual Extraneous DNA	Dot blot hybridization method with DIG-labeled DNA probe, it shall be not more than 10ng/0.1mg protein.
Residual Host Bacterial Proteins	ELISA method is used; the residual host bacterial proteins shall be not more than 0.050 % of total proteins.
Stability	Lyophilized rhIFN-α2a although stable at 30°C for 6 months, should be stored desiccated below 4°C no more than 3 years. Upon reconstitution it should be stored at 4°C between 3-4 days and for future use below -18°C or more low. Please avoid freeze-thaw cycles.

GENE INFORMATION

Gene Name [IFNA2 interferon, alpha 2 \[Homo sapiens \]](#)

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Synonyms	IFNA2; Interferon, Alpha 2; IFNA; INFA2; MGC125764; MGC125765; Interferon alpha A; Alpha-2a interferon; Interferon alpha 2b; OTTHUMP00000021143; Interferon alpha-A; LelF A; Interferon, alpha-2
Gene ID	3440
mRNA Refseq	NM_000605
Protein Refseq	NP_000596
MIM	147562
UniProt ID	P01563
Chromosome Location	9p22
Pathway	Antigen processing and presentation; Cytokine-cytokine receptor interaction; Jak-STAT signaling pathway; Natural killer cell mediated cytotoxicity; Regulation of autophagy; Toll-like receptor signaling pathway
Function	interferon-alpha/beta receptor binding
PDB rendering based on 1tff.	

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