

Recombinant Human Pegylated Interferon Alpha-2a

Cat. No. IFNA2-02H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human Interferon alpha-2a produced in <i>E. coli</i> is a single, non-glycosylated, polypeptide chain containing 166 amino acids and having a molecular mass of 19376 Dalton. Pegylated IFN alpha-2a is manufactured by attaching a 40KD NHS-mPEG to the primary amino acid of IFN alpha-2a.
Species	Human
Source	E.coli
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.
Purity	>98% as determined by HPLC, FPLC and SDS-PAGE analysis.
Formulation	Lyophilized from a (1mg/ml) solution in containing 8.8mg sodium chloride, 0.4mg sodium acetate and 1.0mg acetate acid buffer.
Specific Activity	PEG-IFN α 2a is fully biologically active when compared to standard. The specific activity as determined in a viral resistance assay using VSV-WISH cells was found to be 1.0 x

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	10 ⁶ IU/mg.
Endotoxin	Less than 0.1 ng/g (1IEU/g) of PEG-IFN alpha-2a.
Reconstitution	It is recommended to reconstitute the lyophilized PEG-IFN alpha-2a in sterile 18M.-cm H ₂ O not less than 100g/ml, which can then be further diluted to other aqueous solutions.
Storage	Lyophilized PEG-IFN alpha-2a although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution PEG-IFN alpha-2a should be stored at 4°C between 2-7 days and for future use below -18°C. For long-term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please avoid freeze-thaw cycles.

GENE INFORMATION

Gene Name	IFNA2
Synonyms	IFNA; INFA2; MGC125764; MGC125765; Leukocyte interferon; B cell interferon, Type I interferon; IFNA2; IFN-α2a; Interferon alpha-A; LeIF A; Interferon alpha-2; Interferon alpha-2 Precursor; interferon, alpha 2
Gene ID	3440
mRNA Refseq	NM_000605
Protein Refseq	NP_000596
MIM	147562
UniProt ID	P01563

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Chromosome Location	9p22
Pathway	Antigen processing and presentation; Cytokine-cytokine receptor interaction; Jak-STAT signaling pathway; KEGG pathway: Natural killer cell mediated cytotoxicity; Regulation of autophagy; Toll-like receptor signaling pathway.
Function	interferon-alpha/beta receptor binding

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