

# **California Bioscience**

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# **Product Datasheet**

Product Name	Interferon-Alpha 1a Human Recombinant
Cata No	CB500422
Source	Escherichia Coli.
Synonyms	Interferon-alpha 1a, IFN-a 1a, IFN alpha 1a.

## Description

At least 23 different variants of IFN-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 carboxy-terminal end.

Interferon-alpha 1a Human Recombinant produced in E.Coli is a single, non-glycosylated, polypeptide chain containing 165 amino acids and having a molecular mass of 19.4 kDa.

The Interferon-alpha 1a contains Valine residue at position 114.

The IFN-a 1a is purified by proprietary chromatographic techniques.

#### **Physical Appearance**

Sterile Filtered White lyophilized (freeze-dried) powder.

#### **Biological Activity**

The specific activity as determined in a viral resistance assay viral resistance assay was found

to be  $1 \times 10^8$  IU/ mg.

## Purity

Greater than 95.0% as determined by:(a) Analysis by RP-HPLC.(b) Analysis by SDS-PAGE.

#### Formulation

Lyophilized from a (1 mg/ml) solution in containing 1X PBS pH-7.4.

# Stability

Lyophilized Interferon alpha 1a although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution IFN-alpha 1a 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 prevent freeze-thaw cycles.** 

#### Sequence

CDLPETHSLD NRRTLMLLAQ MSRISPSSCL MDRHDFGFPQ EEFDGNQFQK APAISVLHEL IQQIFNLFTT KDSSAAWDED LLDKFCTELY QQLNDLEACA MQEERVGETP LMNVDSILAV KKYFRRITLY LTEKKYSPCA WEVVRAEIMR SLSLSTNLQE RLRRKE