

## Recombinant Human IFN $\beta$ 1a / Interferon beta 1a,

### Animal Free & Carrier Free

Cat #: C-CYP278

Size: 5 $\mu$ g, 20 $\mu$ g, 100 $\mu$ g, 500 $\mu$ g, 1mg

Shipping: Blue Ice

### Product Overview

Interferon-beta is, a cytokine, released by fibroblasts and pathogen -exposed dendritic cells, macrophages, and endothelial cells. IFN beta 1a conducts through the heterodimeric IFN-alpha/beta Receptor. IFN-beta-deficient mice are easier to suffer from experimental autoimmune encephalomyelitis (EAE), a disease model of human multiple sclerosis (MS). In addition, IFN-beta has been proved to suppress the Th17 cell response in both MS and EAE and is usually used to treat MS disease.

### Product Information

**Source:** *Escherichia Coli*.

**Purity:** >98% as determined by SDS-PAGE. Ni-NTA chromatography.

**Biological Activity:** Measure by its ability to induce apoptosis in HeLa cells. The ED50 for this effect is < 15 ng/mL.

Measure by its ability to induce cytotoxicity in TF-1 cells. The ED50 for this effect is < 0.1 ng/mL. The specific activity of recombinant human IFN beta 1 a is approximately > 1 x10<sup>7</sup> IU/mg.

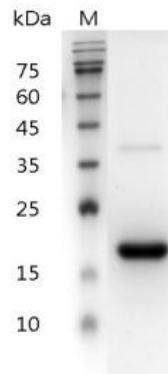
**Endotoxin:** <0.1EU per 1 $\mu$ g of the protein by the LAL method.

**Amino acid sequence:**

MSYNLLGFLQRSSNFQCQKLLWQLNGRLEYCLKDRMNFDIPEEIKQLQQFQKEDAALTIYEMLQNIFAIFRQDSSSTGWNETIVENLLANV

YHQINHLKTVLEEKLEKEDFTRGKLMSSLHLKRYGRILHYLKAKEYSHCAWTIVRVEILRNFYFINRLTYGLRN with polyhistidine tag at the C-terminus.

**Formulation:** Lyophilized from a sterile filtered aqueous solution in 1X PBS, pH 8.0



SDS-PAGE analysis of recombinant human IFN beta 1a

## Usage Method

1. Before opening, it is recommended to centrifuge at 3000-3500 rpm for 5 minutes.
2. Reconstitute to a concentration of 0.1-1.0 mg/mL in sterile distilled H<sub>2</sub>O. Allow the solution to sit at room temperature for at least 20 minutes to ensure complete dissolution. Avoid vigorous vortexing.
3. The reconstituted solution can be stored at 2-8°C for up to 1 week.
4. For long-term storage, it is recommended to further dilute the solution with a carrier protein (such as 0.1% BSA, 10% FBS, or 5% HSA) to a concentration of no less than 10 µg/mL and aliquot for storage at -20°C to -80°C for 3 to 6 months. If serum-free experiments are required, a 5% trehalose solution can be used as a carrier instead. Avoid repeated freeze-thaw cycles.

## Storage

Physical Appearance	Storage	Stability
Lyophilized powder	-20°C to -80°C	1 year
Reconstitution (initial)	2°C to 8°C	Less than 1 week
Reconstitution (after dilution)	-20°C to -80°C	3 to 6 months

## Note

The reagent is only used in the field of scientific research, not suitable for clinical diagnosis or other purposes.