


## Human IFN- $\beta$ 1a protein, His tag (Animal-Free)

Cat #: PRP1053

Size: 5  $\mu$ g/20  $\mu$ g/100  $\mu$ g/1 mg

### Product Information

	<b>Product Name:</b> Human IFN- $\beta$ 1a protein, His tag (Animal-Free)		
<b>REF</b>	<b>Catalog Number:</b> PRP1053	<b>LOT</b>	<b>Lot Number:</b> Refer to product label
	<b>Purity:</b> > 98 % as determined by SDS-PAGE		
	<b>Storage:</b> Store at -20°C		<b>Preparation method:</b> <i>E.coli</i>
	<b>Shipping:</b> The product is shipped at ambient temperature.		

**Background:** Interferon-beta (IFN- $\beta$ 1a), acting via STAT1 and STAT2, is known to upregulate and downregulate a wide variety of genes, most of which are involved in the antiviral immune response. It is a member of Type I IFNs, which include IFN- $\alpha$ , - $\beta$ ,  $\tau$ , and  $\omega$ . IFN- $\beta$  plays an important role in inducing non-specific resistance against a broad range of viral infections. It also affects cell proliferation and modulates immune responses.

**Sequence:** Amino acid sequence derived from Human IFN- $\beta$ 1a protein (Met30-Asn187)(P01574) with 6xHis tag at the C-terminus was expressed.

**Protein length:** The secreted Human IFN- $\beta$ 1a protein consists of 158 amino acids and has a predicted molecular mass of 20.8 kDa.

**Biological Activity:** Measure by its ability to induce apoptosis in HeLa cells. The ED<sub>50</sub> for this effect is <15 ng/mL. Measure by its ability to induce cytotoxicity in TF-1 cells. The ED<sub>50</sub> for this effect is <0.1 ng/mL. The specific activity of recombinant human IFN beta 1a is approximately >1 x10<sup>7</sup> IU/ mg.

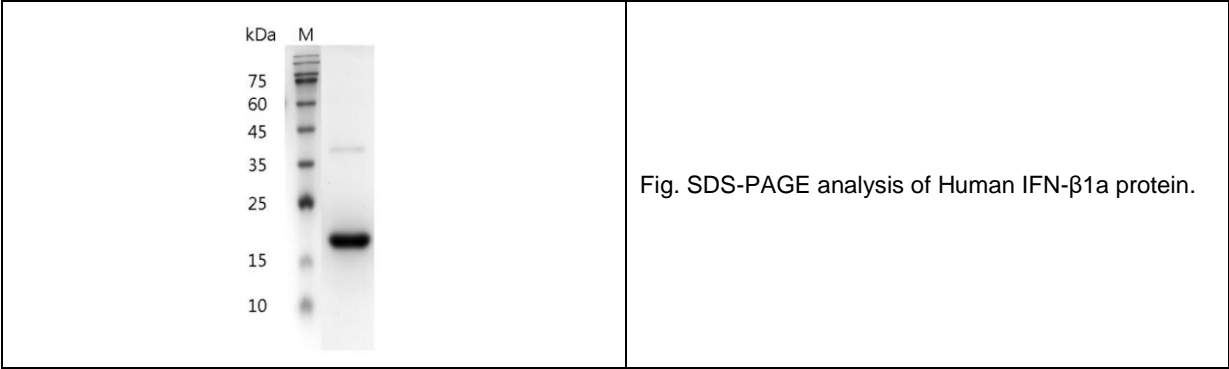
**Endotoxin:** < 0.1 EU per  $\mu$ g of the protein as determined by the LAL method.

**Formulation:** Lyophilized from sterile PBS, pH 8.0.

**Storage Instructions:** Lyophilized protein product should be stored desiccated below -18°C. Upon reconstitution, the protein 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 (5% HSA , 10%FBS or 0.1%BSA). Please prevent freeze-thaw cycles.

**Usage notes:** Always centrifuge tubes before opening. It is recommended to reconstitute the lyophilized protein to a

concentration of 0.1-1 mg/mL in sterile ddH<sub>2</sub>O, and keep at room temperature for at least 20 min to fully dissolve. Please avoid vortex vigorously.



**Note:** The product listed herein is for research use only and is not intended for use in human or clinical diagnosis. Suggested applications of our products are not recommendations to use our products in violation of any patent or as a license. We cannot be responsible for patent infringements or other violations that may occur with the use of this product.