

## Interferon alpha B/IFNA8 Protein, Human, Recombinant (His)

### General Information

Synonyms:	IFN- $\alpha$ B; IFN-alphaB; interferon, $\alpha$ 8; Interferon $\alpha$ -B; interferon, alpha 8
Protein Construction:	A DNA sequence encoding the human IFNA8 (NP_002161.2) (Met1-Glu189) was expressed with a C-terminal polyhistidine tag. Predicted N terminal: Cys 24
Species:	Human
Expression Host:	HEK293 Cells
Accession:	P32881
Molecular Weight:	20.9 kDa (predicted); 28 kDa (reducing conditions)

### QC Testing

Biological Activity:	Measured in antiviral assays using WISH cells infected with vesicular stomatitisvirus (VSV). The ED50 for this effect is 0.2-2 pg/mL.
Purity:	> 90 % as determined by SDS-PAGE
Endotoxin:	< 1.0 EU/ $\mu$ g of the protein as determined by the LAL method.
Formulation:	Lyophilized from a solution filtered through a 0.22 $\mu$ m filter, containing PBS, pH 7.4. Typically, a mixture containing 5% to 8% trehalose, mannitol, and 0.01% Tween 80 is incorporated as a protective agent before lyophilization.

### Preparation and Storage

Reconstitution:	Reconstituted with sterile deionized water to 0.25 mg/mL. Reconstitution conditions may vary depending on the lot.
Stability & Storage:	It is recommended to store recombinant proteins at -20°C to -80°C for future use. Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots. <small>Actual storage temperature shall be subject to the COA.</small>

### Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

### Protein Background

Interferon alpha-B, also known as IFNA8, belongs to the alpha/beta interferon family. Interferons are proteins made and released by host cells in response to the presence of pathogens such as viruses, bacteria, parasites, or tumor cells. Interferon stimulates the production of two enzymes: a protein kinase and an oligoadenylate synthetase. They also allow for communication between cells to trigger the protective defenses of the immune system that eradicate pathogens or tumors. Interferons also activate immune cells, such as natural killer cells and

macrophages. They increase recognition of infection or tumor cells by up-regulating antigen presentation to T lymphocytes. They also increase the ability of uninfected host cells to resist new infections by virus. Certain symptoms, such as aching muscles and fever, are related to the production of IFNs during infection. Produced by macrophages, IFN-alpha has antiviral activities.

### Reference

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Goeddel DV. et al., 1981, Nature. 290 (5801): 20-6.  
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Kempaiah P. et al., 2012, Hum Genet. 131 (8): 1375-91.

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