

Rev03  
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**DATASHEET**

# IFN- $\omega$ , Human

Cat. No.: Z02909

## Product Introduction

<b>Species</b>	Human
<b>Protein Construction</b>	<b>IFN-<math>\omega</math> (Cys24-Ser195) Accession # P05000</b>
<b>Purity</b>	> 97% as analyzed by SDS-PAGE > 97% as analyzed by HPLC
<b>Endotoxin Level</b>	< 1 EU/ $\mu$ g of protein by LAL method
<b>Biological Activity</b>	Fully biologically active when compared to standard. The ED <sub>50</sub> as determined by a chemotaxis bioassay using human TF-1 cells is less than 0.01 ng/ml, corresponding to a specific activity of > 1.0 $\times$ 10 <sup>8</sup> IU/mg.
<b>Expression System</b>	E. coli
<b>Theoretical Molecular Weight</b>	20 kDa
<b>Formulation</b>	Lyophilized from a 0.2 $\mu$ m filtered solution in PBS, pH 7.4.
<b>Reconstitution</b>	It is recommended that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute the lyophilized powder in sterile distilled water or aqueous buffer containing 0.1% BSA to a concentration of 0.1-1.0 mg/ml.
<b>Storage &amp; Stability</b>	Upon receiving, this product remains stable for up to 6 months at -70°C or -20°C. Upon reconstitution, the product should be stable for up to 1 week at 4°C or up to 3 months at -20°C. Avoid repeated freeze-thaw cycles.

## Background

**Target Background :** Interferon-Omega (IFN- $\omega$ ) coded by IFNW1 gene in human, is a member of the type I interferon family, which includes IFN- $\alpha$ , IFN- $\beta$ , and IFN- $\omega$ . The IFNAR-1/IFNAR-2 receptor complex can help with the signal transduction, followed the antiviral or the antiproliferative actions. IFN- $\omega$  is derived from IFN- $\alpha/\beta$  and share 75% sequence with IFN- $\alpha$ . It has two intramolecular disulfide bonds which are crucial for activities. Mire-Sluis et al have described bioassays for IFN- $\alpha$ , IFN- $\beta$ , and IFN- $\omega$  that exploit the ability of these factors to inhibit proliferation of TF-1 cells induced by GM-CSF. The bioassays can be used also with Epo and TF-1 cells, or Epo and Epo-transfected UT-7 cells.

**Synonyms :** IFN Omega; IFN- $\omega$

For laboratory research use only. Direct human use, including taking orally and injection and clinical use are forbidden.