



## Interferon-Omega 1, human recombinant (rHuIFNW1)

**Catalog No:** 97483  
**Lot No:** XXXXX  
**Source:** *E. coli*  
**Synonyms:** Interferon omega-1, Interferon alpha-II-1, IFNW1

### Background

IFN-Omega 1 is a type I interferon, that can be induced by virus-infected leukocytes. Type I interferon family members, which include IFN-alpha, IFN-beta, and IFN-omega, signal through IFNAR-1/IFNAR-2 receptor complex, and wield antiviral and antiproliferative activities. IFNW1 exhibits about 75% sequence homology with IFN-a, and contains 2 conserved disulfide bonds, which are essential for full biological activity.

### Description

Interferon-omega 1 human recombinant produced in *E. coli* is a single, non-glycosylated, polypeptide chain containing 172 amino acids and having a molecular mass of 19.9 kDa. Interferon-Omega 1 is purified by proprietary chromatographic techniques.

### Physical Appearance

Sterile filtered white lyophilized (freeze-dried) powder.

### Formulation

Lyophilized from a 0.2 µm filtered concentrated solution in PBS, pH 7.4.

### Solubility

It is recommended to reconstitute the lyophilized IFNW1 in sterile 18 MΩ-cm H<sub>2</sub>O not less than 100 µg/ml, which can then be further diluted to other aqueous solutions.

### Stability

Lyophilized IFNW1, although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution IFNW1 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.

### Purity

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

### Amino Acid Sequence

MCDLPQNHGL LSRNTLVLLH QMRRISPFLC LKDRRDFRFP QEMVKGSQIQ KAHVMSVLHE MLQQIFSLFH TERSSAAWN  
M TLLDQLHTGL HQQLQHLETC LLQVVGESES AGAISPALT LRRYFQGIRV YLKEKKYSDC AWEVVRMEIM KSLFLSTNMQ  
E RLRSKDRDL GSS

### Activity

The ED<sub>50</sub> was determined by a cytotoxicity assay using Human TF-1 cells is <0.01 ng/ml, corresponding to a specific activity of >100,000,000 units/mg.

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#### Usage

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