



User Manual

Interferon Omega (IFN- ω) (Human)

Cat. No. HEOPP-04012

Description:

Interferon-Omega (IFN- ω) coded by IFNW1 gene in human, is a member of the type I interferon family, which includes IFN- α , IFN- β , and IFN- ω . The IFNAR-1/IFNAR-2 receptor complex can help with the signal transduction, followed by antiviral or antiproliferative actions. IFN- ω is derived from IFN- α/β and shares 75% sequence with IFN- α . It has two intramolecular disulfide bonds which are crucial for its activities. Mire-Sluis et al. have described bioassays for IFN- α , IFN- β , and IFN- ω 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.

Source:

Escherichia coli

Unit:

100 μ g

Reconstitution:

We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in sterile distilled water or aqueous buffer containing 0.1% BSA to a concentration of 0.1-1.0 mg/mL. Stock solutions should be apportioned into working aliquots and stored at $< -20^{\circ}\text{C}$. Further dilutions should be made in appropriate buffered solutions.

Formulation:

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

Storage:

This lyophilized preparation is stable at 2-8 $^{\circ}\text{C}$, but should be kept at -20 $^{\circ}\text{C}$ for long term storage, preferably desiccated. Upon reconstitution, the preparation is stable for up to one

week at 2-8°C. For maximal stability, apportion the reconstituted preparation into working aliquots and store at -20°C to -70°C. Avoid repeated freeze/thaw cycles.

Molecular Weight:

Approximately 19.9 kDa, containing 172 amino acid residues with two conserved disulfide bonds.

Endotoxin:

Less than 1 EU/μg of IFN-ω as determined by LAL method.

Usage:

This material is offered by Cyagen Biosciences for research, laboratory or further evaluation purposes. FOR RESEARCH USE ONLY. NOT INTENDED FOR ANY ANIMAL OR HUMAN THERAP EUTIC OR DIAGNOSTIC USE.

Biological Activity:

The ED50 determined by a chemotaxis bioassay using human TF-1 cells is less than 0.01 ng/mL, corresponding to a specific activity of $> 1.0 \times 10^8$ IU/mg.

Physical Appearance:

Sterile filtered white lyophilized (freeze-dried) powder.

AA Sequence:

CDLPQNHGLL SRNTLVLLHQ MRRISPFLCL KDRRDFRFPQ EMVKGSQLQK
AHVMSVLHEM LQQIFSLFHT ERSSAAWNMT LLDQLHTGLH QQLQHLETCL
LQVVGEGESA GAISSPALTL RRYFQGIRVY LKEKKYSDCA WEVVRMEIMK
SLFLSTNMQE RLRSKDRDLG SS

Purity:

> 97% by SDS-PAGE and HPLC analyses.

Material Safety Data Sheets (MSDSs) are available upon request.

The Certificate of Analysis (COA), which provides detailed quality control information for each product, is also available at the Cyagen website.

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