

IFN- ω , Human

Cat. No.: Z02909-1

Size: 1.0 mg

Synonyms: IFN Omega Human; IFN- ω Human

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 the antiviral or the antiproliferative actions. IFN- ω is derived from IFN- α/β and share 75% sequence with IFN- α . It has two intramolecular disulfide bonds which are crucial for 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.

Amino Acid Sequence:

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00001 CDLPQNHGLL SRNTLVLLHQ MRRISPFLLCL KDRRDFRFPQ
00041 EMVKGSQQLK AHVMSVLHEM LQQIFSLFHT ERSSAAWNMT
00081 LLDQLHTGLH QQLQHLETCL LQVVGEGESA GAISSPALTL
00121 RRYFQGIRVY LKEKKYSDCA WEVVRMEIMK SLFLSTNMQE
00161 RLRSKDRDLG SS
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Source: *E. coli*

Species: Human

Biological Activity: Fully biologically active when compared to standard. The ED₅₀ as determined by a chemotaxis bioassay using human TF-1 cells is less than 0.01 ng/ml, corresponding to a specific activity of $> 1.0 \times 10^8$ IU/mg.

Molecular Weight: Approximately 20.0 kDa, containing 172 amino acid residues with two conserved disulfide bonds.

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

Appearance: Sterile Filtered White lyophilized (freeze-dried) powder.

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 °C. Further dilutions should be made in appropriate buffered solutions.

Purity: > 97 % by SDS-PAGE and HPLC analyses.

Endotoxin Level: Less than 1 EU/ μ g of rHuIFN- ω as determined by LAL method.

Storage: This lyophilized preparation is stable at 2-8 °C, but should be kept at -20 °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.