Datasheet

Cat. No. P1303

Recombinant Human Interferon-omega

Information

Gene ID	3467
Accession #	P05000
Alternate Names	Interferon alpha-II-1
Source	Escherichia coli.
M.Wt	Approximately 20.0 kDa, containing 172 amino acid residues with two conserved disulfide bonds.
AA Sequence	CDLPQNHGLL SRNTLVLLHQ MRRISPFLCL KDRRDFRFPQ EMVKGSQLQK AHVMSVLHEM LQQIFSLFHT ERSSAAWNMT LLDQLHTGLH QQLQHLETCL LQVVGEGESA GAISSPALTL RRYFQGIRVY LKEKKYSDCA WEVVRMEIMK SLFLSTNMQE RLRSKDRDLG SS
Appearance	Sterile Filtered White lyophilized (freeze-dried) powder.
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles - 12 months from date of receipt, -20 to -70 °C as supplied - 1 month, 2 to 8 °C under sterile conditions after reconstitution - 3 months, -20 to -70 °C under sterile conditions after reconstitution
Formulation	Lyophilized from a 0.2 μm filtered concentrated solution in PBS, pH 7.4.
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.
Biological Activity	Fully biologically active when compared to standard. The ED 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 × 10 IU/mg.
Shipping Condition	Gel pack.
Handling	Centrifuge the vial prior to opening.
Usage	For Research Use Only! Not to be used in humans.

Components and Storage

Components	100μg	500μg	
Recombinant Human Interferon-omega	100μg	500μg	

Use a manual defrost freezer and avoid repeated freeze-thaw cycles
- 12 months from date of receipt, -20 to -70 °C as supplied
- 1 month, 2 to 8 °C under sterile conditions after reconstitution
- 3 months, -20 to -70 °C under sterile conditions after reconstitution

Quality Control

Purity	> 97 % by SDS-PAGE and HPLC analyses.
Endotoxin	Less than 1 EU/μg of rHuIFN-ω as determined by LAL method.

Description

Interferon-Omega (IFN-ω) coded by IFNW1 gene in human, is a number 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.

Reference

1. Yang LM, Xue QH, Sun L, et al. 2007. J Interferon Cytokine Res, 27: 119-27
2. Liu L, Leaman DW, Bixby JA, et al. 1996. Biochim Biophys Acta, 1294: 55-62
3. Adolf GR. 1990. Virology, 175: 410-7
4. Benoit P, Maguire D, Plavec I, et al. 1993. J Immunol, 150: 707-16.

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