



Interleukin-6, human recombinant (rHuIL-6)

Catalog No: 50436
Lot No: XXXXX
Source: *E. coli*
Synonyms: IFN- β 2, B cell differentiation factor, BCDF, BSF-2, HPGF, HSF, MGI-2, B-cell stimulatory factor 2, Interferon beta-2, Hybridoma growth factor, CTL differentiation factor, CDF, IL-6, HGF

Background

IL-6 is a cytokine with a wide variety of biological functions: it plays an essential role in the final differentiation of b-cells into ig-secreting cells, it induces myeloma and plasmacytoma growth, it induces nerve cells differentiation, in hepatocytes it induces acute phase reactants.

Description

Interleukin-6 human recombinant produced in *E. coli* is a single, non-glycosylated polypeptide chain containing 184 amino acids and having a molecular mass of 21000 Dalton. IL-6 is purified by proprietary chromatographic techniques.

Physical Appearance

Sterile filtered white lyophilized (freeze-dried) powder.

Formulation

Lyophilized from a 0.2 μ m filtered concentrated (1 mg/ml) solution in PBS, pH 7.4.

Solubility

It is recommended to reconstitute the lyophilized Interleukin-6 in sterile 18 M Ω -cm H₂O not less than 100 μ g/ml, which can then be further diluted to other aqueous solutions.

Stability

Lyophilized Interleukin-6, although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution IL-6 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 97.0% as determined by (a) Analysis by RP-HPLC, (b) Analysis by SDS-PAGE.

Amino Acid Sequence

The sequence of the first five N-terminal amino acids was determined and was found to be Met-Pro-Val-Pro-Pro.

Biological Activity

The ED₅₀ as determined by the dose-dependant stimulation of murine 7TD1 cells is less than 0.1 ng/ml, corresponding to the specific activity of 1.0 x 10,000,000 Units per mg.

Protein Content

Protein quantitation was carried out by two independent methods:

- 1) UV spectroscopy at 280 nm using the absorbency value of 0.47 as the extinction coefficient for a 0.1% (1 mg/ml) solution. This value is calculated by the PC GENE computer analysis program of protein sequences (IntelliGenetics).
- 2) Analysis by RP-HPLC, using a standard solution of IL-6 as a reference standard.

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