RayBiotech, Inc.

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Certificate of Analysis and Data Sheet

Recombinant Rat Interleukin-6

Catalog No.
228-10939

Source
Escherichia Coli.

Synonyms

IFN-b2, B cell differentiation factor (BCDF), BSF-2, HPGF, HSF, MGI-2, IL-6, Interleukin HP-1, B-cell hybridoma growth factor.

Introduction

Interleukin-6 is a potent pro-inflammatory cytokine primarily produced by activated T cells and an assortment of other cells including endothelial cells and macrophages. IL-6 affects B and T lymphocytes and has been shown to have a role in host defense, acute phase reactions, immune responses and hematopoiesis.

Description

Interleukin-6 Rat Recombinant produced in E.Coli is a single, non-glycosylated polypeptide chain containing 187 amino acids and having a molecular mass of 21732 Dalton.
The IL6 is purified by proprietary chromatographic techniques.

Physical Appearance

Sterile Filtered White lyophilized (freeze-dried) powder.

Formulation

The protein was lyophilized without any additives.

Solubility

It is recommended to reconstitute the lyophilized Interleukin-6 in 100mM acetic acid to 1.0 mg/mL and incubated for 30 minutes at room temperature to regain full activity, 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 IL6 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.

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Purity

Greater than 95.0% 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-Phe-Pro-Thr-Ser.

Biological Activity

The ED50= 0.03-0.1 ng/mL. The biological activity is determined by measuring the dose-dependant proliferation of IL-6 dapendent B9 cells. A concentration range of 0.1 to 10.0 ng/mL is effective for most in vitro applications.

Protein content

Protein quantitation was carried out by two independent methods
1. UV spectroscopy at 280 nm using the absorbency value of 0.55 as the extinction coefficient for a 0.1% (1mg/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.