

### RayBiotech, Inc.

3607 Parkway Lane suite 200 Norcross,GA 30092 Tel: 770-729-2992, 1-888-494-8555

Website: www.raybiotech.com Email: info@raybiotech.com

Fax: 770-206-2393

## Certificate of Analysis and Data Sheet

# **Recombinant Rat Interleukin-5**

**Catalog No.** 228-10935

Source

Escherichia Coli.

### **Synonyms**

EDF, BCDFII, TRF, T-cell replacing factor, Eosinophil differentiation factor, B cell differentiation factor I, IL-5.

#### Introduction

The protein encoded by this gene is a cytokine that acts as a growth and differentiation factor for both B cells and eosinophils. This cytokine is a main regulator of eosinopoiesis, eosinophil maturation and activation. The elevated production of this cytokine is reported to be related to asthma or hypereosinophilic syndromes. The receptor of this cytokine is a heterodimer, whose beta subunit is shared with the receptors for interleukin 3 (IL3) and colony stimulating factor 2 (CSF2/GM-CSF). This gene, together with those for interleukin 4 (IL4), interleukin 13 (IL13), and CSF2, form a cytokine gene cluster on chromosome 5. This cytokine, IL4, and IL13 are found to be regulated coordinately by long-range regulatory elements spread over 120 kilobases on chromosome 5q31.

### Description

Interleukin-5 Rat Recombinant produced in E.Coli is a dimeric, non-glycosylated polypeptide chain containing 113 amino acids and having a molecular mass of 13074 Dalton. The IL-5 is purified by proprietary chromatographic techniques.

### Physical Appearance

Sterile Filtered White lyophilized (freeze-dried) powder.

### **Formulation**

Lyophilized from a concentrated (1mg/ml) solution in water containing no additives.

### Solubility

It is recommended to reconstitute the lyophilized Interleukin-5 Rat in sterile  $18M\Omega$ -cm H2O not less than  $100\mu g/ml$ , which can then be further diluted to other aqueous solutions.



### RayBiotech, Inc.

3607 Parkway Lane suite 200 Norcross,GA 30092 Tel: 770-729-2992, 1-888-494-8555

Fax: 770-206-2393

Website: www.raybiotech.com Email: info@raybiotech.com

### Stability

Lyophilized Interleukin-5 Rat although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution IL5 Rat should be stored at 4°C between 2-7 days and for future use below -18°C.

Please prevent freeze-thaw cycles.

### **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-Glu-Ile-Pro-Met.

## **Biological Activity**

The ED50 range=0.3-1.0 ng/ml as determined by the dose-dependant stimulation of the proliferation of BCL-1 cells.