

Recombinant Rat Interleukin-6

Certificate of Analysis and Data Sheet

➤ Source: E.Coli	➤ Catalog No. CTK-388
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➤ **Background:**

Interleukin (IL)-6 is an important proinflammatory and immunoregulatory cytokine expressed by various cells. has been shown to inhibit the growth of early stage and to promote the proliferation of advanced stage melanoma cells in vitro.

➤ **Description :**

Recombinant Rat IL-6 produced in E.Coli is a single, non-glycosylated polypeptide chain containing 187 amino acids and having a molecular mass of 21732 Dalton.

Recombinant Rat IL-6 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 Recombinant Rat IL-6 in 50mM acetic acid not less than 100µg/ml, which can then be further diluted to other aqueous solutions.

➤ **Stability:**

Lyophilized Recombinant Rat IL-6 although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution Rat 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 avoid freeze-thaw cycles.

➤ **Purity:**

Greater than 95.0% as determined by:

(a) Analysis by RP-HPLC.

(b) Anion-exchange FPLC.

(c) Analysis by reducing and non-reducing SDS-PAGE Silver Stained gel.

➤ **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.

➤ **Dimers and aggregates:**

Less than 1% as determined by silver-stained SDS-PAGE gel analysis.

➤ **Biological Activity:**

This Recombinant Rat IL-6 is fully biologically active when compared to standard. The ED₅₀ as determined by the dose-dependent stimulation of murine 7TD1 cells is < 0.01 ng/ml, corresponding to a Specific Activity of 1 x 10⁸ IU/mg.

➤ **Endotoxin:**

Less than 0.1 ng/μg (IEU/μg) of Rat IL-6.

➤ **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.

➤ **Usage:**

This material is offered for research, laboratory or further manufacturing purposes.