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# SCIENTIFIC

# IL 2 Rat

**Description:**Interleukin-2 Rat Recombinant produced in E.Coli is a single, non-glycosylated polypeptide chain containing 134 amino acids and having a molecular mass of 17kDa. The IL-2 is purified by proprietary chromatographic techniques.

Synonyms:T-cell growth factor (TCGF), Aldesleukin, Lymphokine, IL-2.

Source: Escherichia Coli.

Physical Appearance: Sterile Filtered White lyophilized (freeze-dried) powder.

**Amino Acid Sequence:** The sequence of the first five N-terminal amino acids was determined and was found to be Met-Ala-Pro-Thr-Ser.

Purity: Greater than 95.0% as determined by SDS-PAGE.

### Formulation:

The protein (1mg/ml) was lyophilized without any additives.

# Stability:

Lyophilized Interleukin-2 although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution IL2 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.

# Usage:

NeoBiolab's products are furnished for LABORATORY RESEARCH USE ONLY. The product may not be used as drugs, agricultural or pesticidal products, food additives or household chemicals.

# Solubility:

It is recommended to reconstitute the lyophilized Interleukin 2 in sterile 100mM AcOH not less than 100

### Introduction:

IL2 is a secreted cytokine that is important for the proliferation of T and B lymphocytes. The receptor of this cytokine is a heterotrimeric protein complex whose gamma chain is also shared by interleukin 4 (IL4) and interleukin 7 (IL7). The expression of this gene in mature thymocytes is monoallelic, which represents an unusual regulatory mode for controlling the precise expression of a single gene. The targeted disruption of a similar gene in mice leads to ulcerative colitis-like disease, which suggests an essential role of this gene in the immune response to antigenic stimuli.

# **Biological Activity:**

The ED50 as determined by the dose-dependant stimulation of murine CTLL-2 cells is 0.1-0.4 ng/ml corresponding to a specific activity of 2,500,000-10,000,000 units/mg.

### References:

Title:Functional Gap Junctions Facilitate Melanoma Antigen Transfer and Cross-Presentation between Human Dendritic Cells.Publication:The Journal of Immunology June 1, 2007 vol. 178 no. 11 6949-6957 Link:http://www.jimmunol.org/content/178/11/6949.full









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