

# Recombinant human IL-2 (C145S) protein

Catalog Number: ILB0501

## PRODUCT INFORMATION

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### Expression system

E.coli

### Domain

22-153aa

### UniProt No.

P60568

### NCBI Accession No.

NP\_000577.2

### Alternative Names

IL-2, TCGF, Aldesleukin, T-cell growth factor, Interleukin-2

## PRODUCT SPECIFICATION

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### Molecular Weight

15.4 kDa (133aa) confirmed by MALDI-TOF

### Concentration

0.5mg/ml (determined by Bradford assay)

### Formulation

Liquid in. Phosphate-Buffered Saline (pH 7.4)

### Purity

> 95% by SDS-PAGE

### Endotoxin level

< 1 EU per 1ug of protein (determined by LAL method)

### Biological Activity

Measured in a cell proliferation assay using CTLL2 mouse cytotoxic T cells. The ED50 range  $\leq 0.65$ ng/ml.

### Tag

Non-Tagged

### Application

SDS-PAGE, Bioactivity

### Storage Condition

Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

## BACKGROUND

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### Description

IL-2, also known as T cell growth factor (TCGF), is an immunoregulatory lymphokine produced by T-cells in

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response to antigenic or mitogenic stimulation. IL-2/IL-2R signaling is required for T-cell proliferation and other fundamental functions which are essential for the immune response. IL-2 stimulates growth and differentiation of B-cells, NK cells, lymphokine activated killer cells, monocytes, macrophages and oligodendrocytes. This recombinant human IL-2 is a 15.4 kDa protein, containing 133 amino acid residues including one intra chain disulfide bond. Recombinant human IL-2 was overexpressed in *E. coli* and purified by conventional chromatography, after refolding of the isolated inclusion bodies in a renaturation buffer.

## Amino acid Sequence

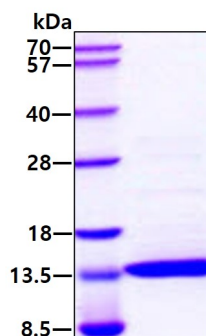
MPTSSSTKKT QLQLEHLLLD LQMILNGINN YKNPKLTRML TFKFYMPKKA TELKHLQCLE EELKPLEEVL NLAQSKNFHL RPRDLISNIN VIVLELKGSE TTFMCEYADE TATIVEFLNR WITFSQSIIS TLT

## General References

Morgan DA., et al. (1976). *Science*, 193. 1007-8.  
 Watson J., et al. (1980). *Immunol Rev*, 51. 257-78.  
 Taniguchi T., et al. (1983). *Nature*, 302. 305-10.

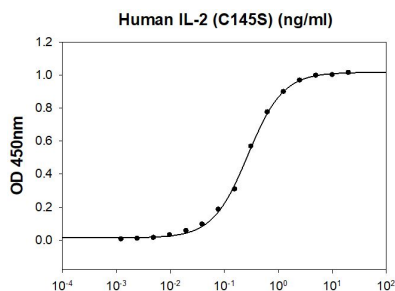
## DATA

### SDS-PAGE



3µg by SDS-PAGE under reducing condition and visualized by coomassie blue stain.

### Biological Activity



Human IL-2 (C145S) stimulates cell proliferation of the CTLL2 mouse cytotoxic T cells. The ED50 range  $\leq 0.65$  ng/ml.