# Recombinant Mouse IL-2 Protein

## Catalog No.: RP01384



## Sequence Information

**Species**
Mouse

**Gene ID**
16183

**Swiss Prot**
P04351

**Tags**
C-His

**Synonyms**
Il-2,IL2

## Product Information

**Source**
HEK293 cells

**Purification**
≥ 95 % as determined by SDS-PAGE.

**Calculated MW**
18.07 kDa

**Observed MW**
22-25 kDa

**Endotoxin**
< 0.1 EU/μg of the protein by LAL method.

**Formulation**
Lyophilized from a 0.22 μm filtered solution of PBS, pH 7.4.

**Reconstitution**
Centrifuge the vial before opening. Reconstitute to a concentration of 0.1-0.5 mg/mL in sterile distilled water. Avoid vortex or vigorously pipetting the protein. For long term storage, it is recommended to add a carrier protein or stablizer (e.g. 0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose), and aliquot the reconstituted protein solution to minimize free-thaw cycles.

## Background

Interleukin-2, also known as a T-cell growth factor, TCGF, Aldesleukin, and IL2, is a secreted protein that belongs to the IL-2 family. Interleukin-2 / IL-2 was the first interleukin molecule to be discovered. Interleukin-2 / IL-2 molecule was first purified to homogeneity by immunoaffinity chromatography by Kendall Smith and his team at Dartmouth Medical School. Interleukin-2 / IL-2 was also the first cytokine shown to mediate its effects via a specific IL-2 receptor, and it was also the first interleukin to be cloned and expressed from a complementary DNA (cDNA) library. Interleukin-2 / IL-2 was designated number 2 because Smith's data at the time indicated that IL-1, produced by macrophages, facilitates IL-2 production by T lymphocytes (T cells).Interleukin-2 / IL-2 is produced by T-cells in response to antigenic or mitogenic stimulation, this protein is required for T-cell proliferation and other activities crucial to regulation of the immune response. Interleukin-2 / IL-2 is normally produced by the body during an immune response. When environmental substances (molecules or microbes) gain access to the body, these substances (termed antigens) are recognized as foreign by antigen receptors that are expressed on the surface of lymphocytes. Antigen binding to the T cell receptor (TCR) stimulates the secretion of Interleukin-2 / IL-2 and the expression of IL-2 receptors IL-2R. The IL-2 / IL-2R interaction then stimulates the growth, differentiation, and survival of antigen-selected cytotoxic T cells via the activation of the expression of specific genes. Interleukin-2 / IL-2 can stimulate B-cells, monocytes, lymphokine-activated killer cells, natural killer cells, and glioma cells.

## Basic Information

**Description**
Recombinant Mouse IL-2 Protein is produced by HEK293 cells expression system. The target protein is expressed with sequence (Ala21-Gln169) of mouse IL2 (Accession #NP_032392.1) fused with a 6×His tag at the C-terminus.

**Activity**
1.Measured by its binding ability in a functional ELISA. Immobilized Mouse IL-2 at 2 μg/mL (100 μL/well) can bind Mouse IL-2 with a linear range of 0.1-43.8 ng/mL.
2. Measured in a cell proliferation assay using HT-2 mouse T cells. The $ED_{50}$ for this effect is 0.88-3.5 ng/mL, corresponding to a specific activity of $2.86 \times 10^5$-$1.14 \times 10^6$ units/mg.3.Measured in a cell proliferation assay using CTLL2 mouse T cells. The $ED_{50}$ for this effect is 0.32-1.26 ng/mL, corresponding to a specific activity of $7.94 \times 10^5$~$3.17 \times 10^6$ units/mg.

**Shipping**
Lyophilized proteins are shipped at ambient temperature.
Liquid proteins are shipped at frozen temperature with dry ice.
Upon receipt, store it immediately at the temperature recommended below.

**Storage**
Store at -20℃

**Contact**

400-999-6126
cn.market@abclonal.com.cn
www.abclonal.com.cn

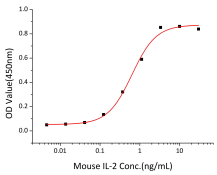


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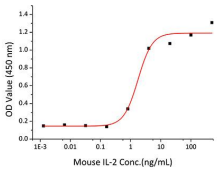
## Operational Notes

For your safety and health, please wear a lab coat and disposable gloves for handling.

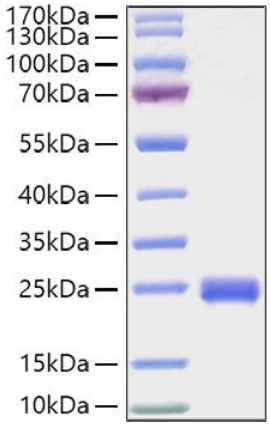
## Validation Data



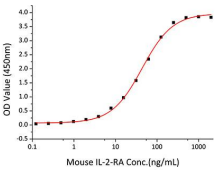

Measured in a cell proliferation assay using CTLL2 mouse T cells. The $ED_{50}$ for this effect is 0.32-1.26 ng/mL, corresponding to a specific activity of $7.94\times10^5$~$3.17\times10^6$ units/mg.




Recombinant Mouse IL-2 stimulates cell proliferation of the HT-2 mouse T cells. The $ED_{50}$ for this effect is 0.88-3.5 ng/mL, corresponding to a specific activity of $2.86\times10^5$ -$1.14\times10^6$ units/mg.




Recombinant Mouse IL-2 Protein was determined by SDS-PAGE under reducing conditions with Coomassie Blue.




Immobilized Mouse IL-2 (Catalog:RP01384) at 2 μg/mL (100 μL/well) can bind Mouse IL-2RA (Catalog:RP01481) with a linear range of 0.1-43.8 ng/mL.



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