

# Human IL-2 Protein

Cat. No. IL2-HE001

## Description

<b>Source</b>	Recombinant Human IL-2 Protein is expressed from E.coli without tag. It contains Ala21-Thr153.
<b>Accession</b>	P60568
<b>Molecular Weight</b>	The protein has a predicted 15.5 kDa same as Tris-Bis PAGE result.
<b>Endotoxin</b>	Less than 1EU per µg by the LAL method.
<b>Purity</b>	> 95% as determined by Tris-Bis PAGE > 95% as determined by HPLC

## Formulation and Storage

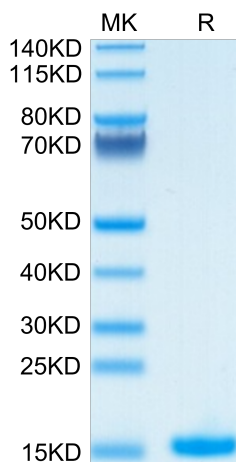
<b>Formulation</b>	Lyophilized from 0.22µm filtered solution in 100mM Acetic Acid. Normally 8% trehalose is added as protectant before lyophilization.
<b>Reconstitution</b>	Centrifuge the tube before opening. Reconstituting to a concentration more than 100 µg/ml is recommended. Dissolve the lyophilized protein in 100mM Acetic Acid.
<b>Storage</b>	-20 to -80°C for 12 months as supplied from date of receipt. -20 to -80°C for 3-6 months in unopened state after reconstitution. 2-8°C for 2-7 days after reconstitution. Recommend to aliquot the protein into smaller quantities for optimal storage. Please minimize freeze-thaw cycles.

## Background

Interleukin-2 (IL-2) is an interleukin, a type of cytokine signaling molecule in the immune system. It is a 15,5 - 16 kDa protein that regulates the activities of white blood cells (leukocytes, often lymphocytes) that are responsible for immunity. IL-2 has essential roles in key functions of the immune system, tolerance and immunity, primarily via its direct effects on T cells.

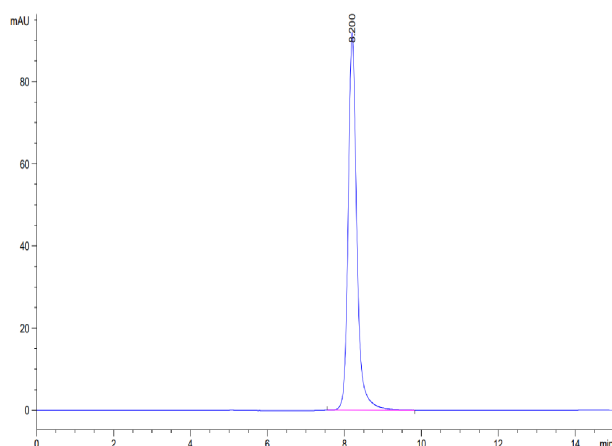
## Assay Data

### Tris-Bis PAGE



Human IL-2 on Tris-Bis PAGE under reduced condition. The purity is greater than 95%.

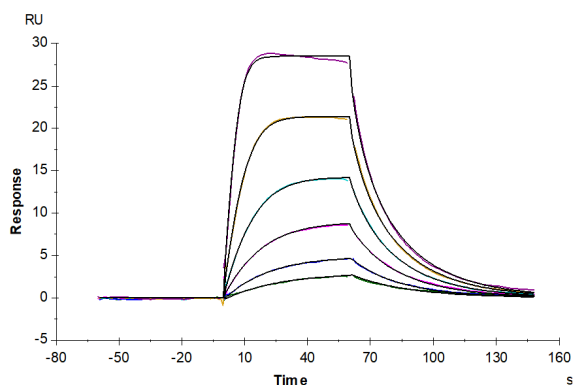
### SEC-HPLC



The purity of Human IL-2 is greater than 95% as determined by SEC-HPLC.

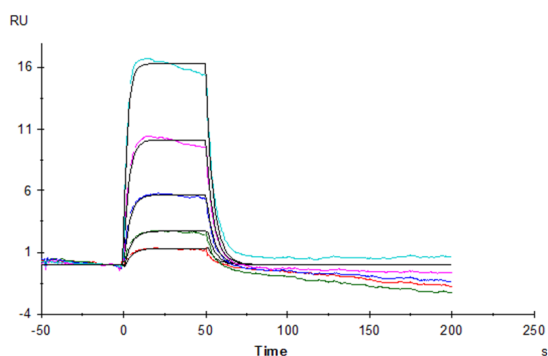
Assay Data

SPR Data



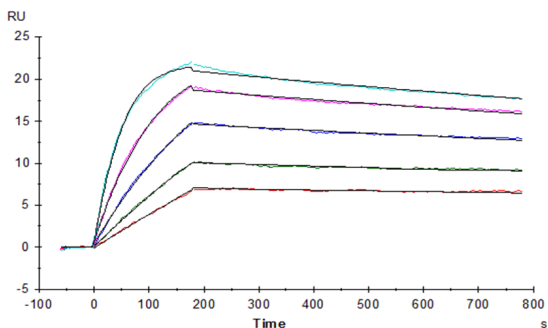
Human IL-2 R alpha, His Tag captured on CM5 Chip via anti-his antibody can bind Human IL-2, No Tag with an affinity constant of 16.82 nM as determined in SPR assay (Biacore T200).

SPR Data



Human IL-2 R beta, His Tag captured on CM5 Chip via Anti-His Antibody can bind Human IL-2, No Tag with an affinity constant of 0.25µM as determined in SPR assay (Biacore T200).

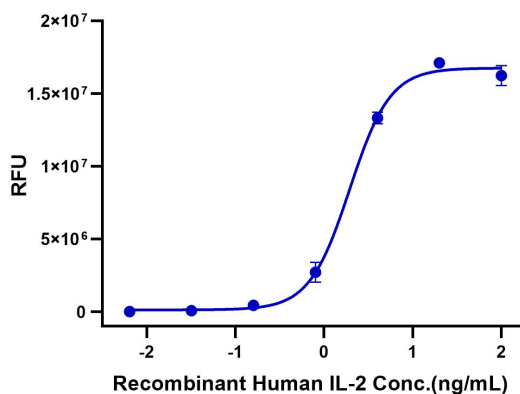
SPR Data



Human IL-2 R beta & IL-2 R gamma, hFc Tag captured on CM5 Chip via Protein A can bind Human IL-2, No Tag with an affinity constant of 0.114 nM as determined in SPR assay (Biacore T200).

Cell Based Assay

Recombinant Human IL-2 Bioactivity



Measured in a cell proliferation assay using CTLL2 mouse cytotoxic T cells. The ED50 for this effect is 0.5-2 ng/mL (QC Test).