

# Human IL-2 R beta/CD122 Protein

Cat. No. CD1-HM222

## Description

<b>Source</b>	Recombinant Human IL-2 R beta/CD122 Protein is expressed from HEK293 with hFc tag at the C-Terminus. It contains Ala27-Asp239.
<b>Accession</b>	NP_000869
<b>Molecular Weight</b>	The protein has a predicted MW of 51.35 kDa. Due to glycosylation, the protein migrates to 60-70 kDa based on Bis-Tris PAGE result.
<b>Endotoxin</b>	Less than 1EU per $\mu\text{g}$ by the LAL method.
<b>Purity</b>	> 95% as determined by Bis-Tris PAGE > 95% as determined by HPLC

## Formulation and Storage

<b>Formulation</b>	Lyophilized from 0.22 $\mu\text{m}$ filtered solution in PBS (pH 7.4). Normally 8% trehalose is added as protectant before lyophilization.
<b>Reconstitution</b>	Centrifuge the tube before opening. Reconstituting to a concentration more than 100 $\mu\text{g}/\text{ml}$ is recommended. Dissolve the lyophilized protein in distilled water.
<b>Storage</b>	-20 to -80°C for 12 months as supplied from date of receipt. -80°C for 3 months after reconstitution. Recommend to aliquot the protein into smaller quantities for optimal storage. Please minimize freeze-thaw cycles.

## Background

IL-2 R beta is a member of the cytokine receptor superfamily. Human IL-2 R beta cDNA encodes a 551 amino acid residue precursor Type I membrane protein with a 26 residue signal peptide, a 214 residue extracellular region, a 25 residue transmembrane region and a 286 residue cytoplasmic domain. Functional IL-2 receptors can exist in two affinity states on cell surfaces, the high affinity complex consisting of heterotrimers of the alpha, beta, and gamma chains, and the intermediate affinity complex comprising heterodimers of the beta and gamma chains.

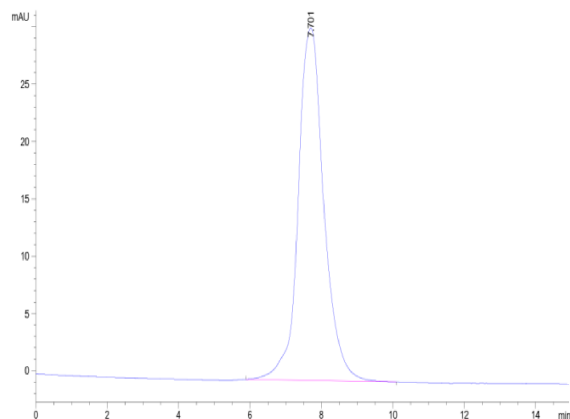
## Assay Data

### Bis-Tris PAGE



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

### SEC-HPLC



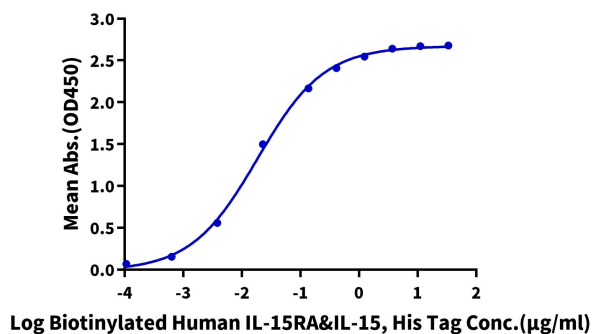
The purity of Human IL-2 R beta is greater than 95% as determined by SEC-HPLC.

Assay Data

ELISA Data

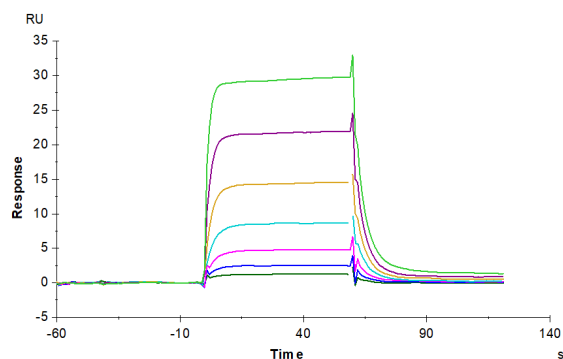
Human IL-2 R beta, hFc Tag ELISA

0.2µg Human IL-2 R beta, hFc Tag Per Well



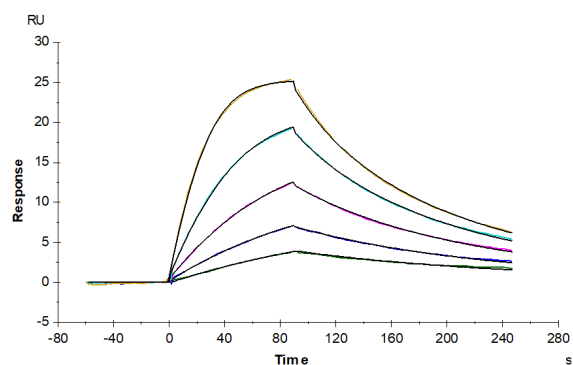
Immobilized Human IL-2 R beta, hFc Tag at 1µg/ml (100µl/well) on the plate. Dose response curve for Biotinylated Human IL-15Ra&IL-15, His Tag with the EC50 of 18.5ng/ml determined by ELISA (QC Test).

SPR Data



Human IL-2 R beta, hFc Tag captured on CM5 Chip via Protein A can bind Human IL-2, No Tag with an affinity constant of 0.216 µM as determined in SPR assay (Biacore T200).

SPR Data



Human IL-2 R beta, hFc Tag captured on CM5 Chip via Protein A can bind Human IL-15, No Tag with an affinity constant of 2.88 nM as determined in SPR assay (Biacore T200).