

## CD122/IL2RB Protein, Human, Recombinant (His & Avi)

### General Information

Synonyms:	IL-2 R $\beta$ /CD122;IL-15 R beta;RP5-1170K4.6;IL-2R subunit beta;IL-2R subunit $\beta$ ;CD122;IL-2 R beta;IL2RB;P70-75;IL-2 R $\beta$ ;p75;IL-15 R $\beta$
Protein Construction:	Ala27-Asp239
Species:	Human
Expression Host:	HEK293 Cells
Accession:	P14784
Molecular Weight:	27.5 kDa (predicted). Due to glycosylation, the protein migrates to 40-50 kDa based on Tris-Bis PAGE result.

### QC Testing

Biological Activity:	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 0.12 $\mu$ M as determined in SPR assay.
Purity:	> 95% as determined by Tris-Bis PAGE; > 95% as determined by HPLC
Endotoxin:	< 1.0 EU/ $\mu$ g of the protein as determined by the LAL method.
Formulation:	Lyophilized from a solution filtered through a 0.22 $\mu$ m filter, containing PBS (pH 7.4). Typically, 8% trehalose is incorporated as a protective agent before lyophilization.

### Preparation and Storage

#### Reconstitution:

Reconstitute the lyophilized protein in distilled water. The product concentration should not be less than 100  $\mu$ g/ml. Before opening, centrifuge the tube to collect powder at the bottom. After adding the reconstitution buffer, avoid vortexing or pipetting for mixing.

#### Stability & Storage:

It is recommended to store recombinant proteins at -20°C to -80°C for future use. Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

#### Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

### Protein 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.

Reference

Smith K A. The structure of IL2 bound to the three chains of the IL2 receptor and how signaling occurs[J]. Medical Immunology, 2006, 5(1).

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