# Biotinylated Human IL-2 R beta&IL-2 R gamma Heterodimer Protein, Fc,Avitag™&Fc,Avitag™ (MALS verified)

Catalog # ILG-H82F3





### **Synonym**

IL-2 R beta & IL-2 R gamma, IL-2 RB & IL-2 RG

### Source

Biotinylated Human IL-2RB&IL-2RG Heterodimer Protein, Fc,Avitag&Fc,Avitag(ILG-H82F3) is expressed from human 293 cells (HEK293). It contains AA Ala 27 - Asp 239 (IL-2RB) & Leu 23 - Asn 254 (IL-2RG) (Accession # P14784-1 (IL-2RB) & P31785-1 (IL-2RG)). Predicted N-terminus: Ala 27 (IL-2RB) & Leu 23 (IL-2RG)

### **Molecular Characterization**

IL-2RB(Ala 27 - Asp 239) P14784-1	Fc(Pro 100 - Lys 330) P01857	Avi
IL-2RG(Leu 23 - Asn 254) P31785-1	Fc(Pro 100 - Lys 330) P01857	Avi

Biotinylated Human IL-2RB&IL-2RG Heterodimer Protein,

Fc,Avitag&Fc,Avitag is produced by co-expression of IL-2RB and IL-2RG, has a calculated MW of 52.8 kDa (IL-2RB) and 55.3 kDa (IL-2RG). Subunit IL-2RB is fused with a human IgG1 Fc tag at the C-terminus, followed by an Avi tag (Avitag<sup>TM</sup>) and subunit IL-2RG is fused with a human IgG1 Fc tag at the C-terminus, followed by an Avi tag (Avitag<sup>TM</sup>). The protein migrates as 60-66 kDa and 80-90 kDa when calibrated against <u>Star Ribbon Pre-stained Protein Marker</u> under reducing (R) condition (SDS-PAGE) due to glycosylation.

### Labeling

Biotinylation of this product is performed using Avitag<sup>TM</sup> technology. Briefly, the single lysine residue in the Avitag is enzymatically labeled with biotin.

## **Protein Ratio**

Passed as determined by the HABA assay / binding ELISA.

### **Purity**

>95% as determined by SDS-PAGE.

### **Formulation**

Lyophilized from  $0.22~\mu m$  filtered solution in PBS, pH7.4 with trehalose as protectant.

Contact us for customized product form or formulation.

### Reconstitution

Please see Certificate of Analysis for specific instructions.

For best performance, we strongly recommend you to follow the reconstitution protocol provided in the CoA.

### Storage

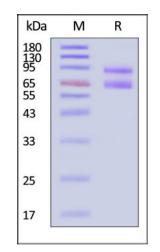
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

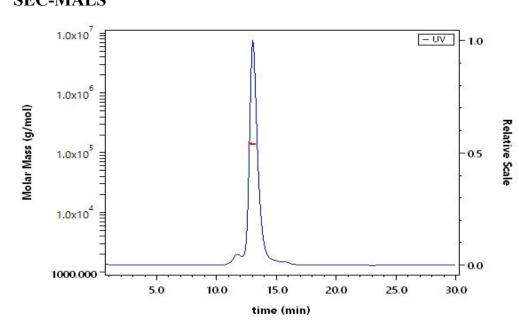
- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

### **SDS-PAGE**



Biotinylated Human IL-2RB&IL-2RG Heterodimer Protein, Fc,Avitag&Fc,Avitag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95% (With Star Ribbon Pre-stained Protein Marker).

# SEC-MALS



The purity of Biotinylated Human IL-2RB&IL-2RG Heterodimer Protein, Fc, Avitag&Fc, Avitag (Cat. No. ILG-H82F3) is more than 85% and the



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MALS.
Report

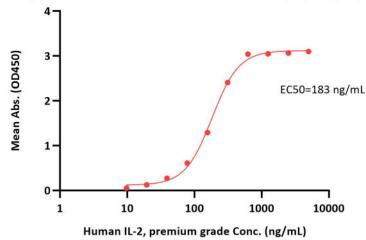
Catalog # ILG-H82F3



molecular weight of this protein is around 140-155 kDa verified by SEC-

## **Bioactivity-ELISA**

Biotinylated Human IL-2RB&IL-2RG Heterodimer Protein, Fc,Avitag&Fc,Avitag ELISA 0.5  $\mu$ g of Biotinylated Human IL-2RB&IL-2RG Heterodimer Protein, Fc,Avitag&Fc,Avitag per well



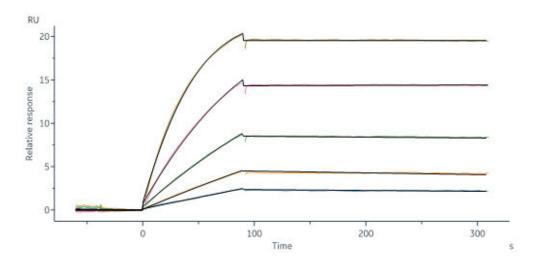
Immobilized Biotinylated Human IL-2RB&IL-2RG Heterodimer Protein, Fc,Avitag&Fc,Avitag (Cat. No. ILG-H82F3) at 5  $\mu$ g/mL (100  $\mu$ L/well) can bind Human IL-2, premium grade (Cat. No. IL2-H5215) with a linear range of 10-312 ng/mL (QC tested).

# 0.5 μg of Human IL-15, Tag Free per well 2.5 - 2.0 - 2.5 - 2.0 - 2.5 - 2.0 - 2.5 - 2.0 - 2.5 - 2.0 - 2.5 -

Biotinylated Human IL-2RB&IL-2RG Heterodimer Protein, Fc, Avitag&Fc, Avitag ELISA

Immobilized Human IL-15, premium grade (Cat. No. IL5-H4117) at 5  $\mu$ g/mL (100  $\mu$ L/well) can bind Biotinylated Human IL-2RB&IL-2RG Heterodimer Protein, Fc,Avitag&Fc,Avitag (Cat. No. ILG-H82F3) with a linear range of 0.039-0.625  $\mu$ g/mL (Routinely tested).

# **Bioactivity-SPR**



Biotinylated Human IL-2RB&IL-2RG Heterodimer Protein, Fc,Avitag&Fc,Avitag (Cat. No. ILG-H82F3) captured on Biotin CAP-Series S Sensor Chip can bind Human IL-2 Protein, Tag Free (Cat. No. IL2-H5215) with an affinity constant of 6.50 pM as determined in a SPR assay (Biacore 8K) (Routinely tested).

### Background

Both Interleukin-2 receptor subunit beta and Interleukin-2 receptor subunit gamma are receptor for interleukin-2. Common subunit for the receptors for a variety of interleukins. Interacts with SHB upon interleukin stimulation. Probably in association with IL15RA, involved in the stimulation of neutrophil phagocytosis by IL15. This beta subunit is involved in receptor mediated endocytosis and transduces the mitogenic signals of IL2. IL2R exists in 3 different forms: a high affinity dimer, an intermediate affinity monomer (beta subunit), and a low affinity monomer (alpha subunit). The high and intermediate affinity forms also associate with a gamma subunit.

