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

Catalaa # II C LI00E4



#### Synonym

IL-2 R beta & IL-2 R alpha & IL-2 R gamma

#### **Source**

Biotinylated Human IL-2RB&IL-2RA&IL-2RG, Fc,Avitag&Fc,Avitag(ILG-H82F4) is expressed from human 293 cells (HEK293). It contains AA Ala 27 - Asp 239 & Glu 22 - Ser 212 & Leu 23 - Asn 254 (Accession # P14784-1 (IL-2RB) & P01589-1 (IL-2RA) & P31785-1 (IL-2RG)).

Predicted N-terminus: Ala 27 & Glu 22

#### **Molecular Characterization**

Biotinylated Human IL-2RB&IL-2RA&IL-2RG, Fc,Avitag&Fc,Avitag is produced by co-expression of IL-2RB and IL-2RA and IL-2RG, has a calculated MW of 52.8 kDa (IL-2RB) and 77.1 kDa (IL-2RA&IL-2RG). Subunit IL-2RB is fused with a human IgG1 Fc tag at the C-terminus, followed by a Avi tag (Avitag<sup>TM</sup>) and subunit IL-2RA&IL-2RG is fused with a human IgG1 Fc tag at the C-terminus, followed by a Avi tag (Avitag<sup>TM</sup>). The reducing (R) protein migrates as 65-70 kDa and 115-120 kDa respectively 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.

# Endotoxin

Less than 1.0 EU per µg by the LAL method.

## **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**

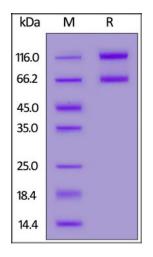
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

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.

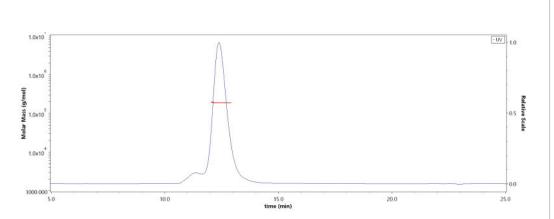
## **SDS-PAGE**



SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95%.

# **Bioactivity-ELISA**

# **SEC-MALS**



The purity of Biotinylated Human IL-2RB&IL-2RA&IL-2RG, Fc,Avitag&Fc,Avitag (Cat. No. ILG-H82F4) is more than 85% and the molecular weight of this protein is around 180-200 kDa verified by SEC-MALS.

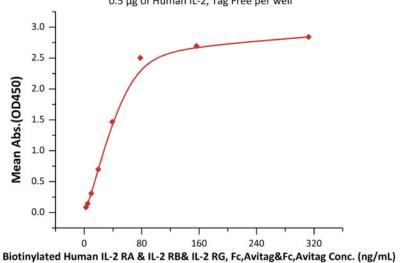
Report

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



Catalaa # II C 1100E4





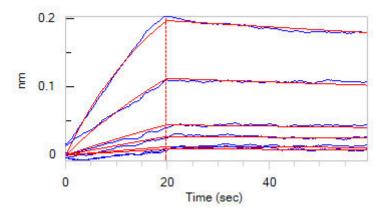
Immobilized Human IL-2, Tag Free at 5  $\mu$ g/mL (100  $\mu$ L/well) can bind Biotinylated Human IL-2 RA & IL-2 RB& IL-2 RG, Fc,Avitag&Fc,Avitag (Cat. No. ILG-H82F4) with a linear range of 2-78 ng/mL (QC tested).

# Biotinylated Human IL-2 RA & IL-2 RB& IL-2 RG, Fc, Avitag&Fc, Avitag ELISA 0.5 μg of Human IL-15, Tag Free per well 2.5 - 2.0 - 1.5 - 1

Biotinylated Human IL-2 RA & IL-2 RB& IL-2 RG, Fc, Avitag&Fc, Avitag Conc. (µg/mL)

Immobilized Human IL-15, premium grade (Cat. No. IL5-H4117) at 5  $\mu$ g/mL (100  $\mu$ L/well) can bind Biotinylated Human IL-2 RA & IL-2 RB& IL-2 RG, Fc,Avitag&Fc,Avitag (Cat. No. ILG-H82F4) with a linear range of 0.039-1.25  $\mu$ g/mL (Routinely tested).

# **Bioactivity-BLI**



Loaded Biotinylated Human IL-2RB&IL-2RA&IL-2RG, Fc,Avitag&Fc,Avitag (Cat. No. ILG-H82F4) on SA Biosensor, can bind Human IL-2, His Tag (Cat. No. IL2-H52H8) with an affinity constant of 2.41 nM as determined in BLI assay (ForteBio Octet Red96e) (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.

#### **Clinical and Translational Updates**

Please contact us via <u>TechSupport@acrobiosystems.com</u> if you have any question on this product.