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

Catalog # ILG-C82F6

Synonym

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

Source

Biotinylated Cynomolgus IL-2RB&IL-2RA&IL-2RG, Fc,Avitag&Fc,Avitag(ILG-C82F6) is expressed from human 293 cells (HEK293). It contains AA Ala 27 - Thr 240 (IL-2RB) & Glu 22 - Glu 238 (IL-2RA) & Leu 23 - Pro 255 (IL-2RG) (Accession # Q38J85-1 (IL-2RB) & A0A2K5UYC9-1 (IL-2RA) & Q38JL2-1 (IL-2RG)).
Predicted N-terminus: Ala 27 (IL-2RB) & Glu 22 (IL-2RA)

Molecular Characterization

Biotinylated Cynomolgus 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 53.0 kDa (IL-2RB) and 80.0 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™) and subunit IL-2RA&IL-2RG is fused with a human IgG1 Fc tag at the C-terminus, followed by a Avi tag (Avitag™). The reducing (R) protein migrates as 65-70 kDa and 115-130 kDa respectively due to glycosylation.

The protein is designed as a heterodimer.

Labeling

Biotinylation of this product is performed using Avitag™ 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 μm 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

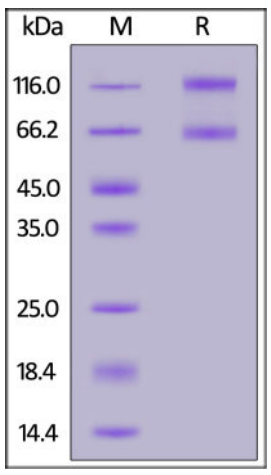
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

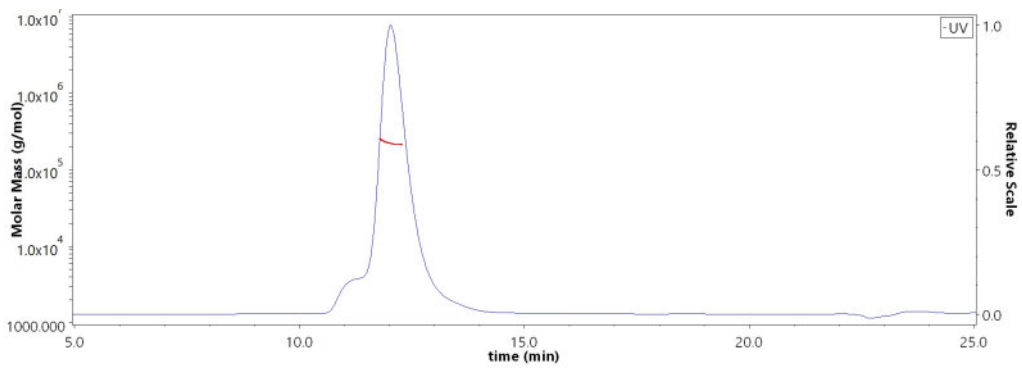
- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

SDS-PAGE



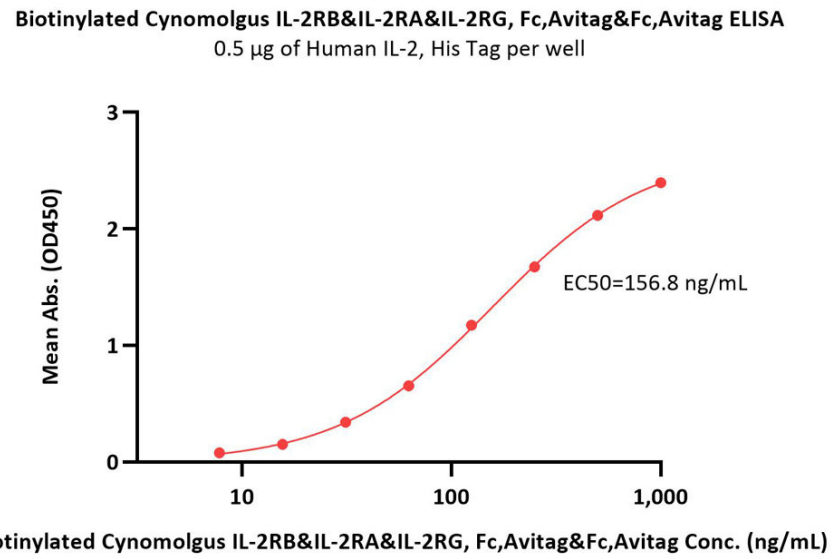
Biotinylated Cynomolgus IL-2RB&IL-2RA&IL-2RG, Fc,Avitag&Fc,Avitag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95%.

SEC-MALS



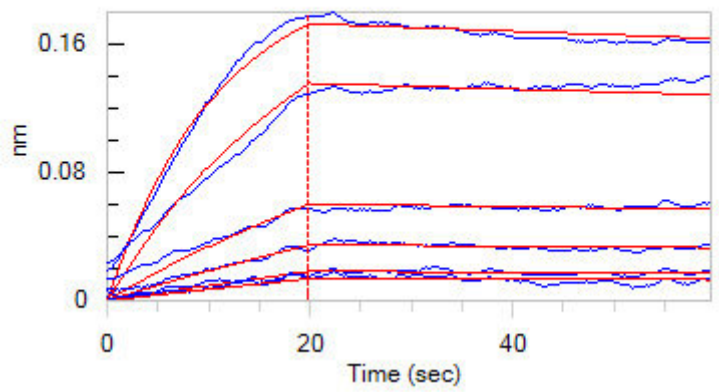
The purity of Biotinylated Cynomolgus IL-2RB&IL-2RA&IL-2RG, Fc,Avitag&Fc,Avitag (Cat. No. ILG-C82F6) is more than 85% and the molecular weight of this protein is around 200-240 kDa verified by SEC-MALS.
Report

Bioactivity-ELISA



Immobilized Human IL-2, His Tag (Cat. No. IL2-H52H8) at 5 μg/mL (100 μL/well) can bind Biotinylated Cynomolgus IL-2RB&IL-2RA&IL-2RG, Fc,Avitag&Fc,Avitag (Cat. No. ILG-C82F6) with a linear range of 8-125 ng/mL (QC tested).

Bioactivity-BLI



Loaded Biotinylated Cynomolgus IL-2RB&IL-2RA&IL-2RG, Fc,Avitag&Fc,Avitag (Cat. No. ILG-C82F6) on SA Biosensor, can bind Human IL-2, His Tag (Cat. No. IL2-H52H8) with an affinity constant of 0.755 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.