Human IL-2 R beta&IL-2 R gamma Heterodimer Protein, His Tag&Twin-Strep Tag (MALS verified)

Catalog # ILG-H5283

Synonym

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

Source

Human IL-2RB&IL-2RG Heterodimer Protein, His Tag&Twin-Strep Tag(ILG-H5283) 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

Human IL-2RB&IL-2RG Heterodimer Protein, His Tag&Twin-Strep Tag is produced by co-expression of IL-2RB and IL-2RG, has a calculated MW of 29.9 kDa (IL-2RB) and 34.1 kDa (IL-2RG). Subunit IL-2RB is fused with a polyhistidine tag at the C-terminus and subunit IL-2RG is fused with Twin-Strep tag at the C-terminus. The protein migrates as 40-44 kDa and 60-65 kDa when calibrated against Star Ribbon Pre-stained Protein Marker under reducing (R) condition (SDS-PAGE) due to glycosylation.

Endotoxin

Less than 1.0 EU per μg by the LAL method.

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

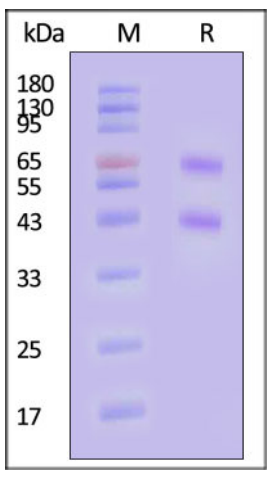
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

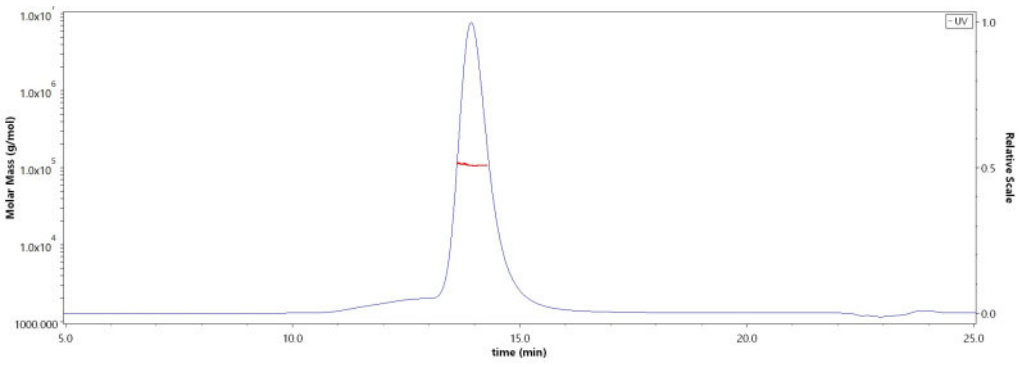
- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

SDS-PAGE



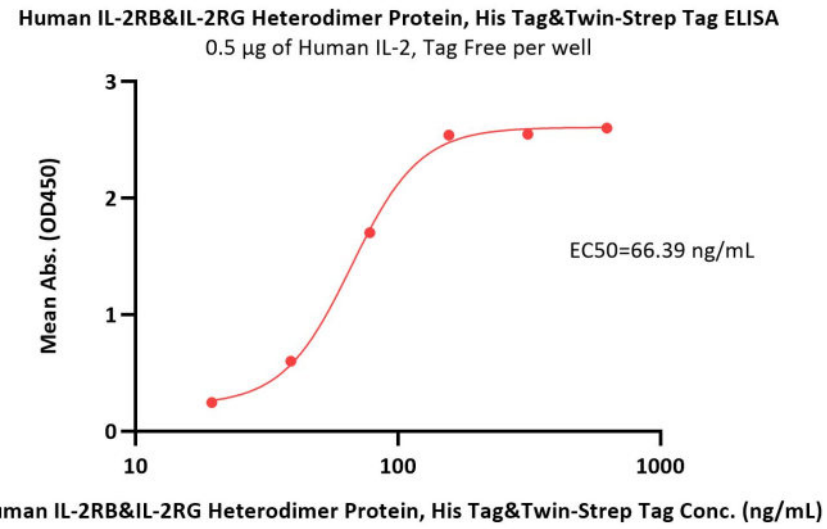
Human IL-2RB&IL-2RG Heterodimer Protein, His Tag&Twin-Strep Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95% (With Star Ribbon Pre-stained Protein Marker).

SEC-MALS



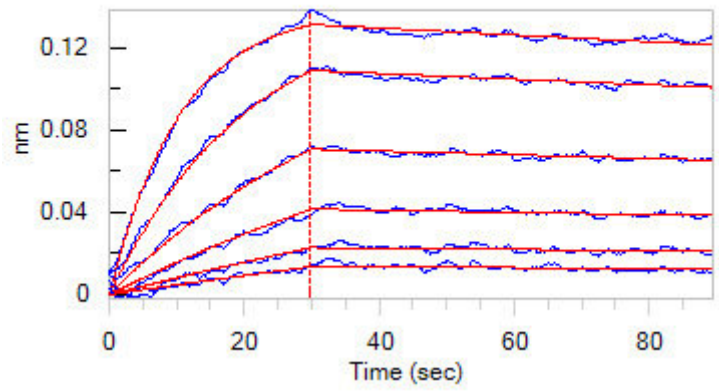
The purity of Human IL-2RB&IL-2RG Heterodimer Protein, His Tag&Twin-Strep Tag (Cat. No. ILG-H5283) is more than 85% and the molecular weight of this protein is around 90-115 kDa verified by SEC-MALS.
Report

Bioactivity-ELISA



Immobilized Human IL-2, Tag Free at 5 μg/mL (100 μL/well) can bind Human IL-2RB&IL-2RG Heterodimer Protein, His Tag&Twin-Strep Tag (Cat. No. ILG-H5283) with a linear range of 20-78 ng/mL (QC tested).

Bioactivity-BLI



Loaded Human IL-2RB&IL-2RG Heterodimer Protein, His Tag&Twin-Strep Tag (Cat. No. ILG-H5283) on NTA Biosensor, can bind Human IL-2, Tag Free with an affinity constant of 1.42 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