Biotinylated Human IL-23 R Protein, Fc,Avitag™ (MALS verified)

Catalog # ILR-H82F3

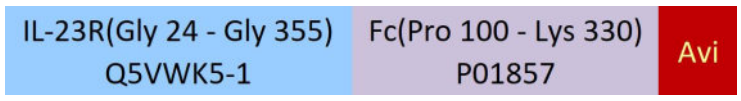
Synonym

IL-23 R,IL-23 Receptor

Source

Biotinylated Human IL-23 R, Fc,Avitag(ILR-H82F3) is expressed from human 293 cells (HEK293). It contains AA Gly 24 - Gly 355 (Accession # Q5VWK5-1).
Predicted N-terminus: Gly 24

Molecular Characterization



This protein carries a human IgG1 Fc tag at the C-terminus, followed by an Avi tag (Avitag™).

The protein has a calculated MW of 66.3 kDa. The protein migrates as 95-105 kDa when calibrated against Star Ribbon Pre-stained Protein Marker under reducing (R) condition (SDS-PAGE) due to glycosylation.

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.

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
Tris with Glycine, Arginine and NaCl, pH7.5 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

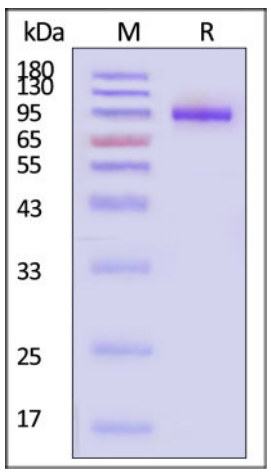
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

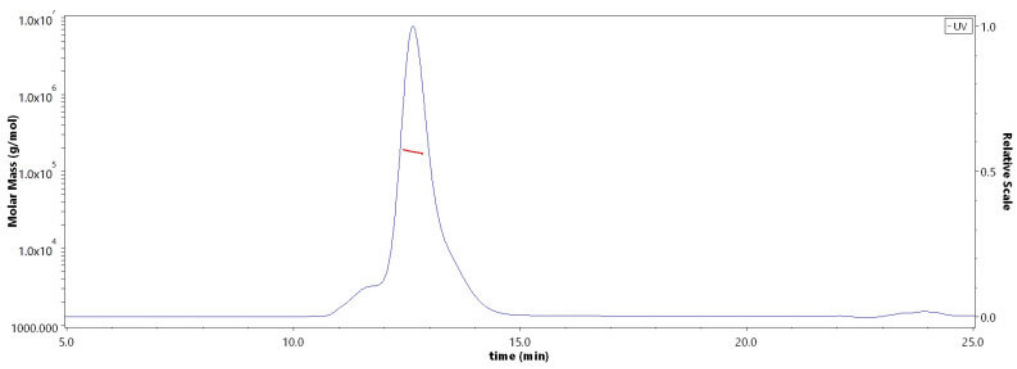
- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

SDS-PAGE



Biotinylated Human IL-23 R, 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-23 R, Fc,Avitag (Cat. No. ILR-H82F3) is more than 85% and the molecular weight of this protein is around 165-195 kDa verified by SEC-MALS.
Report

Bioactivity-ELISA

Biotinylated Human IL-23 R Protein, Fc,Avitag™ (MALS verified)

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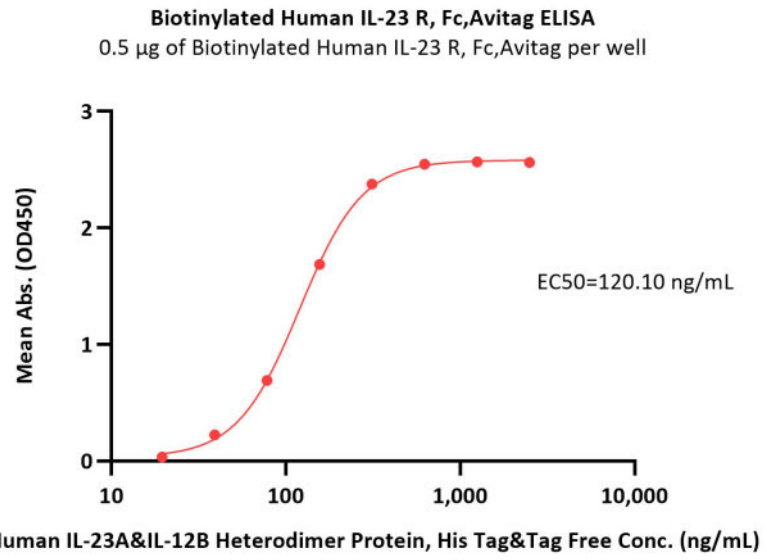
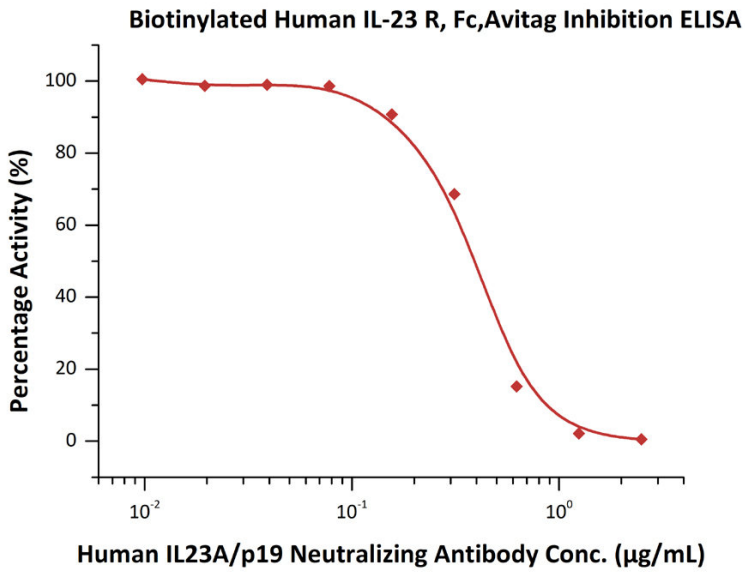


Immobilized Biotinylated Human IL-23 R, Fc,Avitag (Cat. No. ILR-H82F3) at 5 μg/mL (100 μL/well) on Streptavidin precoated (0.5 μg/well) plate can bind Human IL-23A&IL-12B Heterodimer Protein, His Tag&Tag Free (Cat. No. ILB-H52W5) with a linear range of 39-156 ng/mL (QC tested).



Immobilized Biotinylated Human IL-23 R, Fc,Avitag (Cat. No. ILR-H82F3) at 5 μg/mL (100 μL/well), can bind pre-mixed increasing concentrations of Human IL23A/p19 Neutralizing Antibody and 0.25 μg/mL (100 μL/well) Human IL-23A&IL-12B Heterodimer Protein, His Tag&Tag Free (Cat. No. ILB-H52W5) with a half maximal inhibitory concentration (IC50) of 0.3889 μg/mL (Routinely tested).

Background

Interleukin 23 receptor (IL-23R) is a type I cytokine receptor, and IL-23R pairs with the receptor molecule IL12RB1/IL12Rbeta1, and both are required for IL23A signaling. Also, IL-23R associates constitutively with Janus kinase 2 (JAK2), and binds to transcription activator STAT3 in a ligand-dependent manner. Furthermore, IL-23R mediates T-cells, NK cells and possibly certain macrophage/myeloid cells stimulation probably through activation of the Jak-Stat signaling cascade. As for IL-23, it may be responsible for autoimmune inflammatory diseases and be important for tumorigenesis.

Clinical and Translational Updates