

Synonym

Interleukin-10 receptor subunit alpha,IL-10 receptor subunit alpha,IL-10R subunit alpha,IL-10RA,CDw210a,Interleukin-10 receptor subunit 1,IL-10R subunit 1,IL-10R1,CD210,IL10RA,IL10R

Source

Biotinylated Human IL-10 R alpha, Fc,Avitag(ILR-H82F6) is expressed from human 293 cells (HEK293). It contains AA His 22 - Asn 235 (Accession # [Q13651-1](#)).

Predicted N-terminus: His 22

Molecular Characterization

IL10RA(His 22 - Asn 235) Q13651-1	Fc(Pro 100 - Lys 330) P01857	Avi
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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 52.5 kDa. The protein migrates as 65-80 kDa 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.

>90% as determined by SEC-MALS.

Formulation

Lyophilized from 0.22 µm filtered solution in 51 mM Tris, 100 mM Glycine, 25 mM Arginine, 150 mM 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

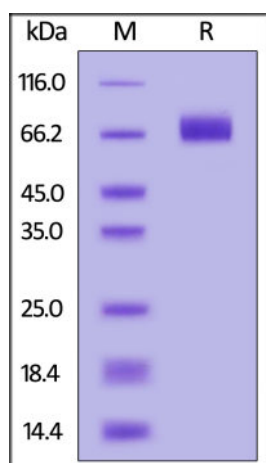
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

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.

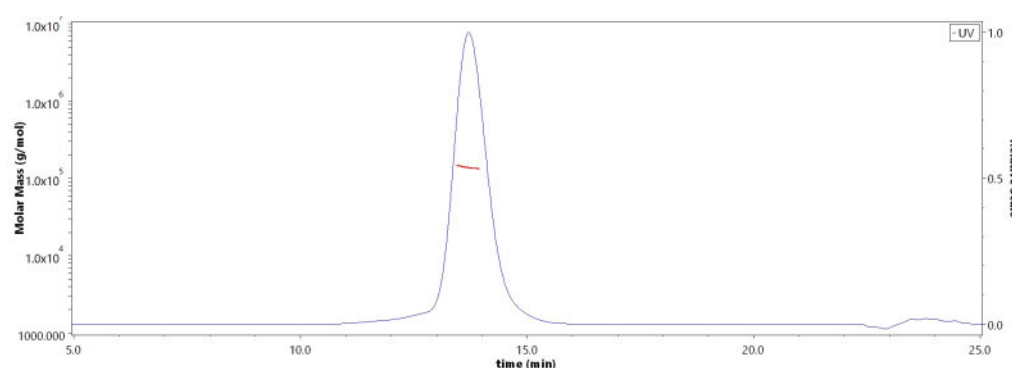
SDS-PAGE



Biotinylated Human IL-10 R alpha, 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%.

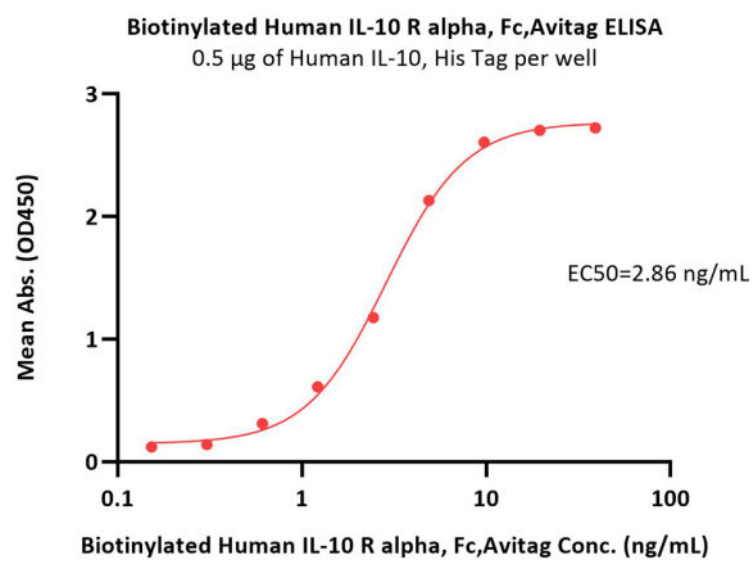
Bioactivity-ELISA

SEC-MALS



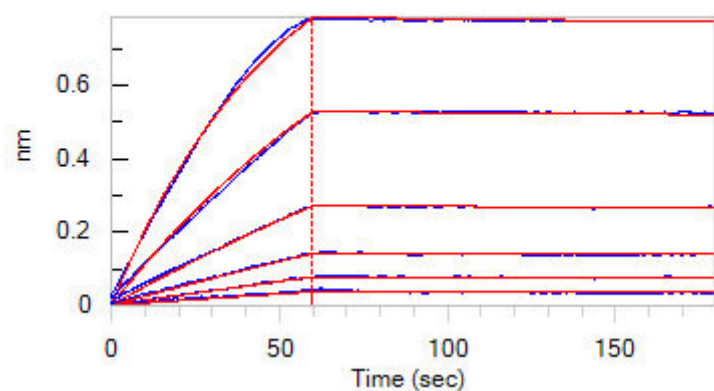
The purity of Biotinylated Human IL-10 R alpha, Fc,Avitag (Cat. No. ILR-H82F6) is more than 90% and the molecular weight of this protein is around 124-152 kDa verified by SEC-MALS.

[Report](#)



Immobilized Human IL-10, His Tag (Cat. No. IL0-H4248) at 5 µg/mL (100 µL/well) can bind Biotinylated Human IL-10 R alpha, Fc,Avitag (Cat. No. ILR-H82F6) with a linear range of 0.2-10 ng/mL (QC tested).

Bioactivity-BLI



Loaded Biotinylated Human IL-10 R alpha, Fc,Avitag (Cat. No. ILR-H82F6) on SA Biosensor, can bind Human IL-10, His Tag (Cat. No. IL0-H4248) with an affinity constant of 0.72 nM as determined in BLI assay (ForteBio Octet Red96e) (Routinely tested).

Background

Interleukin-10 receptor subunit alpha (IL-10 R alpha) is a cell surface receptor for the cytokine IL-10 that participates in IL-10 mediated anti-inflammatory functions, limiting excessive tissue disruption caused by inflammation. Upon binding to IL10, induces a conformational change in IL10RB, allowing IL10RB to bind IL10 as well. In turn, the heterotetrameric assembly complex, composed of two subunits of IL10RA and IL10RB, activates the kinases JAK1 and TYK2 that are constitutively associated with IL10RA and IL10RB respectively. These kinases then phosphorylate specific tyrosine residues in the intracellular domain in IL10RA leading to the recruitment and subsequent phosphorylation of STAT3.

Clinical and Translational Updates

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