Biotinylated Human IL-4 R alpha / CD124 Protein, Fc,Avitag™ (MALS verified)

Catalog # ILR-H82F4

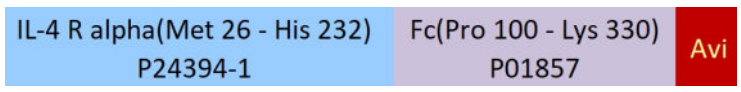
Synonym

IL4R,CD124,IL4RA

Source

Biotinylated Human IL-4 R alpha, Fc,Avitag(ILR-H82F4) is expressed from human 293 cells (HEK293). It contains AA Met 26 - His 232 (Accession # P24394-1).
Predicted N-terminus: Met 26

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 51.9 kDa. The protein migrates as 65-90 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.

Purity

>95% as determined by SDS-PAGE.

>90% as determined by SEC-MALS.

Formulation

Lyophilized from 0.22 μm filtered solution in 50 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

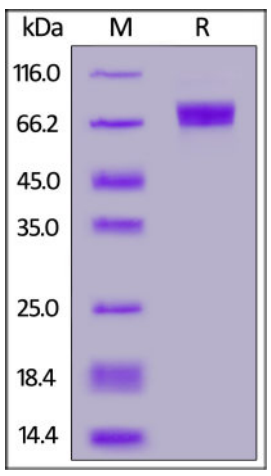
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

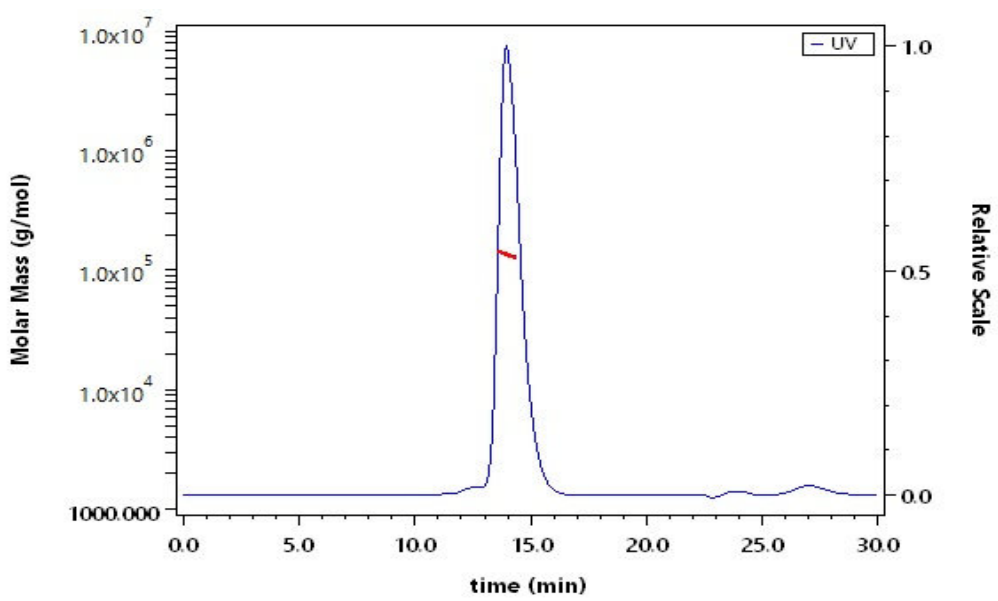
- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

SDS-PAGE



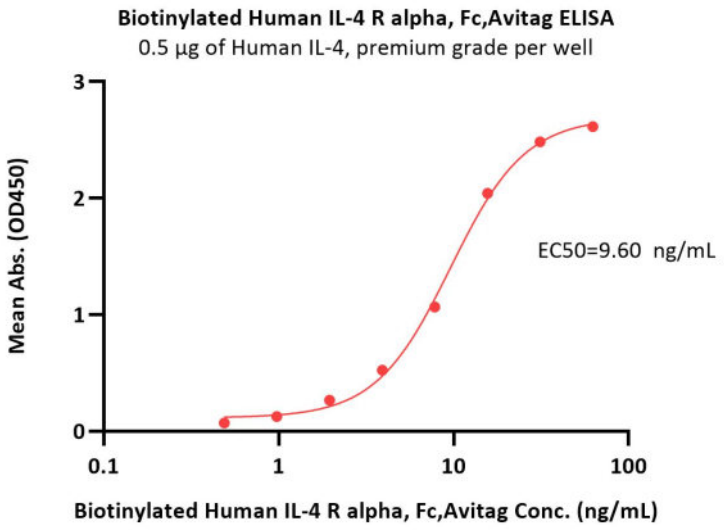
Biotinylated Human IL-4 R alpha, Fc,Avitag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95%.

SEC-MALS



The purity of Biotinylated Human IL-4 R alpha, Fc,Avitag (Cat. No. ILR-H82F4) is more than 90% and the molecular weight of this protein is around 120-147 kDa verified by SEC-MALS.
Report

Bioactivity-ELISA



Immobilized Human IL-4, premium grade (Cat. No. IL4-H4218) at 5 μg/mL (100 μL/well) can bind Biotinylated Human IL-4 R alpha, Fc,Avitag (Cat. No. ILR-H82F4) with a linear range of 0.5-16 ng/mL (QC tested).

Background

IL-4 is a pleiotropic cytokine produced by activated Th2 cells and mast cells, and plays a pivotal role in immune responses. The effects of IL-4 are mediated after binding to high affinity receptor complexes present on hematopoietic as well as non-hematopoietic cells. Hematopoietic cellular responses to IL-4 are mediated by a high affinity receptor complex comprised of the 140 kDa IL4Rα (CD124)subunit and the 70 kDa common cytokine γc chain (CD132).
Interleukin 4 Receptor (IL4R) also known as CD124, IL4Rα and BSF receptor, is a type I cytokine receptor produced by activated Th2 cells and mast cells, and plays an important role in Th2-biased immune responses, alternative macrophage activation, mucosal immunity, allergic inflammation, tumor progression, and atherogenesis. A soluble form of the encoded IL4R protein can be produced by an alternate splice variant or by proteolysis of the membrane-bound protein, and this soluble form can inhibit IL4-mediated cell proliferation and IL5 upregulation by T-cells. IL4R can alternatively associate with IL-13Ra1 to form the type II receptor which is responsive to both IL4 and IL13. Interleukin-4 receptor has been shown to interact with SHC1.