

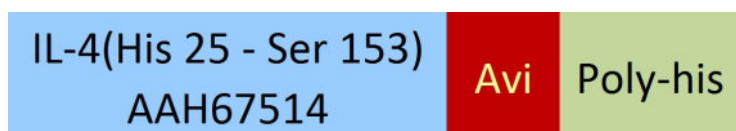
Synonym

IL4,BCGF1,BSF1

Source

Biotinylated Human IL-4, Avitag,His Tag(IL4-H82E0) is expressed from human 293 cells (HEK293). It contains AA His 25 - Ser 153 (Accession # [AAH67514](#)). Predicted N-terminus: His 25

Molecular Characterization



This protein carries an Avi tag (Avitag™) at the C-terminus, followed by a polyhistidine tag

The protein has a calculated MW of 17.6 kDa. The protein migrates as 22 kDa under reducing (R) condition, and 21 kDa under non-reducing (NR) 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 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

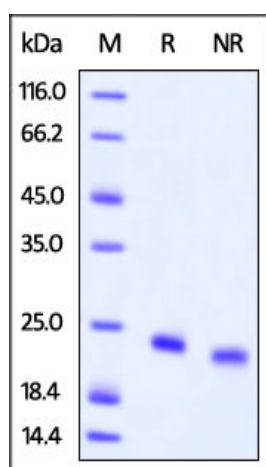
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

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.

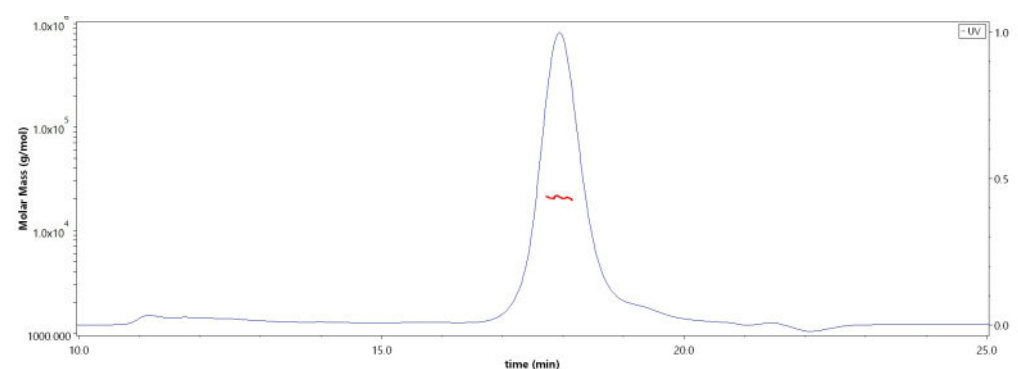
SDS-PAGE



Biotinylated Human IL-4, Avitag,His Tag on SDS-PAGE under reducing (R) and non-reducing (NR) conditions. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95%.

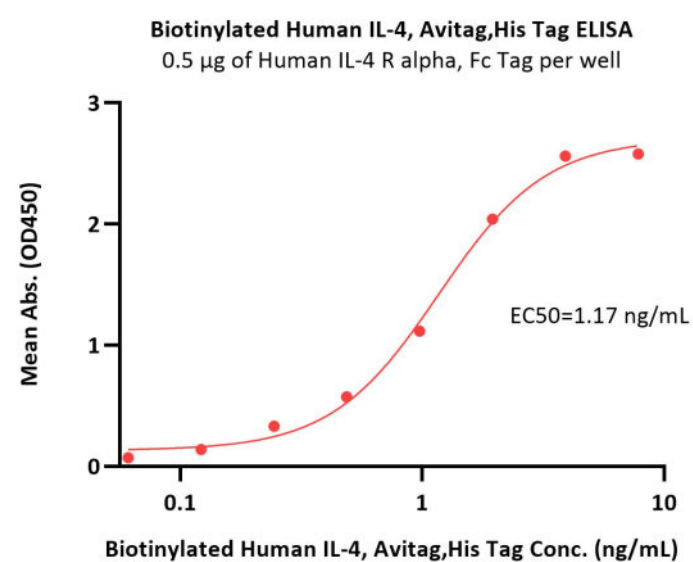
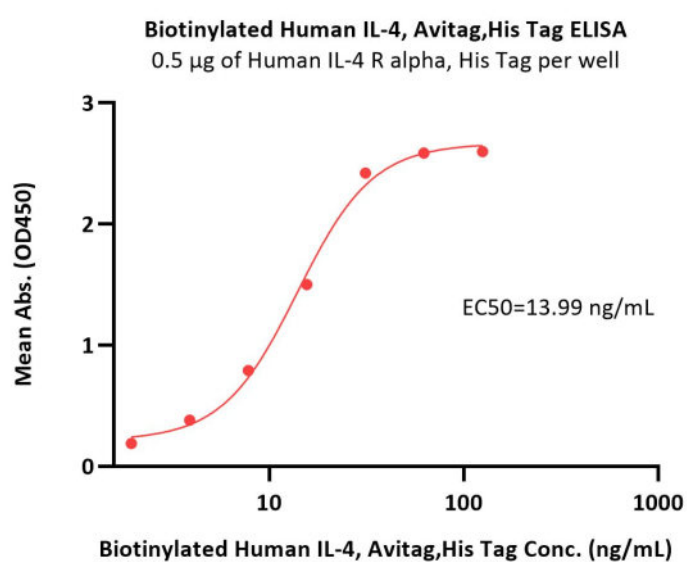
Bioactivity-ELISA

SEC-MALS



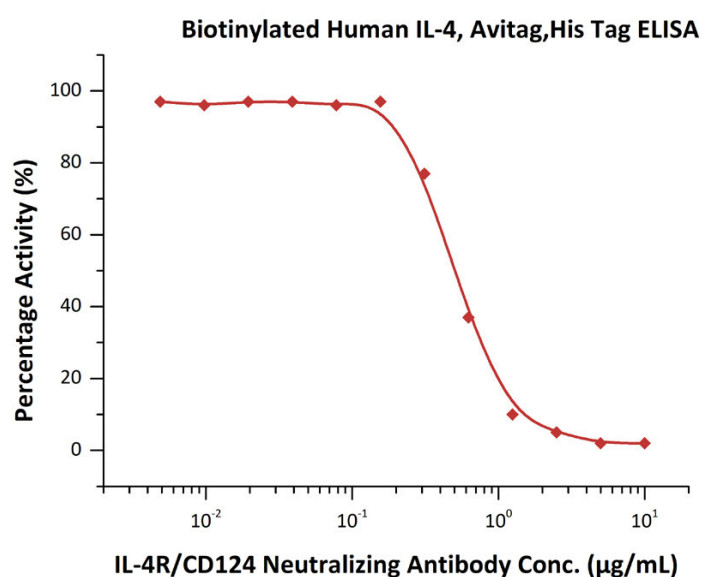
The purity of Biotinylated Human IL-4, Avitag,His Tag (Cat. No. IL4-H82E0) is more than 85% and the molecular weight of this protein is around 18-25 kDa verified by SEC-MALS.

[Report](#)



Immobilized Human IL-4 R alpha, His Tag (Cat. No. ILR-H5221) at 5 µg/mL (100 µL/well) can bind Biotinylated Human IL-4, Avitag, His Tag (Cat. No. IL4-H82E0) with a linear range of 2-16 ng/mL (QC tested).

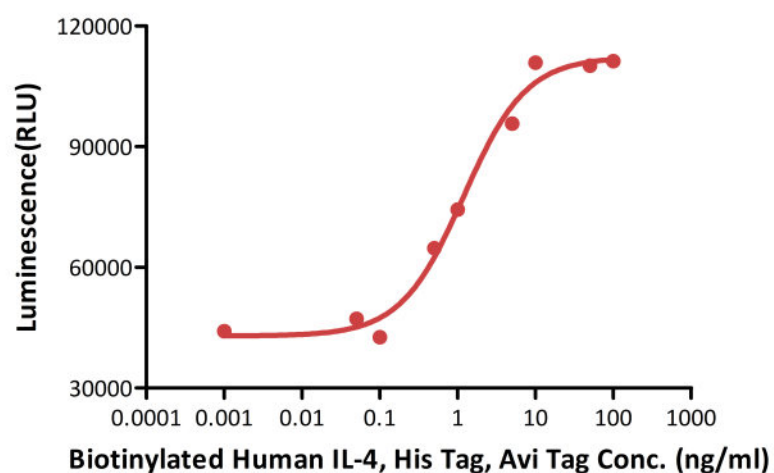
Immobilized Human IL-4 R alpha, Fc Tag (Cat. No. ILR-H5253) at 5 µg/mL (100 µL/well) can bind Biotinylated Human IL-4, Avitag, His Tag (Cat. No. IL4-H82E0) with a linear range of 0.1-2 ng/mL (Routinely tested).



Serial dilutions of Monoclonal IL-4R/CD124 Neutralizing Antibody were added into Human IL-4 R alpha, His Tag (Cat. No. ILR-H5221): Biotinylated Human IL-4, Avitag, His Tag (Cat. No. IL4-H82E0) binding reactions. The half maximal inhibitory concentration (IC50) is 0.505 µg/mL (Routinely tested).

Bioactivity-Bioactivity CELL BASE

Cell proliferation assay of Biotinylated Human IL-4, His Tag, Avi Tag



Biotinylated Human IL-4, Avitag, His Tag (Cat. No. IL4-H82E0) stimulates the proliferation of TF-1 human erythroleukemic cells. The ED50 for this effect is 1.19-2.64 ng/mL (Routinely tested).

Background

Interleukin-4, is a cytokine that induces differentiation of naive helper T cells (Th0 cells to Th2 cells). In the presence of IL-4 and IL-13, cytokines that are produced in a Th-2 type response, particularly during allergy and parasitic infections, macrophages become differentially activated, And this cytokine is a ligand for interleukin 4 receptor. The interleukin 4 receptor also binds to IL13, which may contribute to many overlapping functions of this cytokine and IL13. STAT6, a signal transducer and activator of transcription, has been shown to play a central role in mediating the immune regulatory signal of this cytokine. Recently, researcher found that the cytokine IL-4 plays a key role in development of innate CD8+ T cells in the thymus of several gene-deficient mouse strains, including Itk, KLF2, CBP and Id3, without previous exposure to antigen.

Clinical and Translational Updates

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