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

Catalog # ILR-H82F4



### **Synonym**

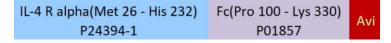
IL4R,CD124,IL4RA

#### 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<sup>TM</sup>).

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<sup>TM</sup> 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  $0.22~\mu m$  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

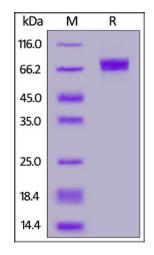
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

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.

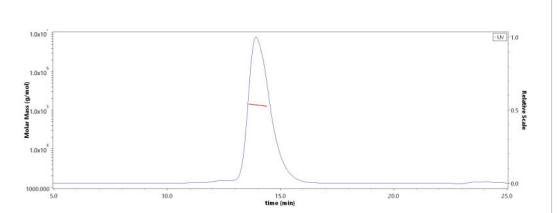
## **SDS-PAGE**



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%.

## **Bioactivity-ELISA**

## SEC-MALS



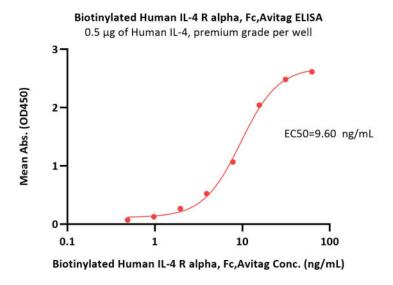
The purity of Biotinylated Human IL-4 R alpha, Fc, Avitag (Cat. No. ILR-H82F4) is more than 90% and the molecular weight of this protein is around 120-147 kDa verified by SEC-MALS.

Report

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







Immobilized Human IL-4, premium grade (Cat. No. IL4-H4218) at 5  $\mu$ g/mL (100  $\mu$ L/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.

# **Clinical and Translational Updates**

