Catalog # ILR-H5253



#### Synonym

IL4R,CD124,IL4RA

#### Source

Human IL-4 R alpha, Fc Tag(ILR-H5253) is expressed from human 293 cells (HEK293). It contains AA Met 26 - His 232 (Accession # <u>P24394-1</u>). Predicted N-terminus: Met 26

# **Molecular Characterization**

IL-4 R alpha(Met 26 - His 232) P24394-1 Fc(Pro 100 - Lys 330) P01857

This protein carries a human IgG1 Fc tag at the C-terminus.

The protein has a calculated MW of 50.4 kDa. The protein migrates as 60-80 kDa when calibrated against <u>Star Ribbon Pre-stained Protein Marker</u> under reducing (R) condition (SDS-PAGE) due to glycosylation.

# Endotoxin

Less than 1.0 EU per  $\mu$ g by the LAL method / rFC method.

# Purity

>95% as determined by SDS-PAGE.

>90% as determined by SEC-MALS.

#### 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

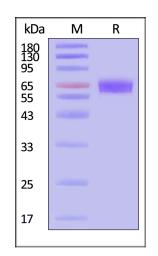
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

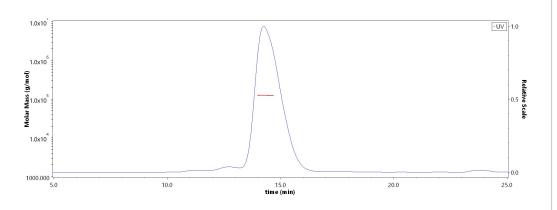
- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

## **SDS-PAGE**



Human IL-4 R alpha, Fc Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95% (With <u>Star Ribbon Pre-stained Protein Marker</u>).

# SEC-MALS



The purity of Human IL-4 R alpha, Fc Tag (Cat. No. ILR-H5253) is more than 90% and the molecular weight of this protein is around 113-138 kDa verified by SEC-MALS.



**Bioactivity-ELISA** 

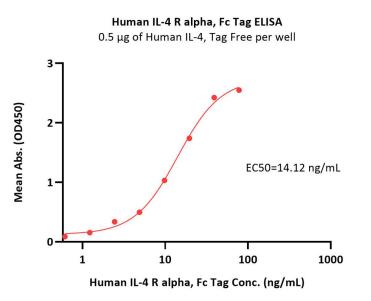




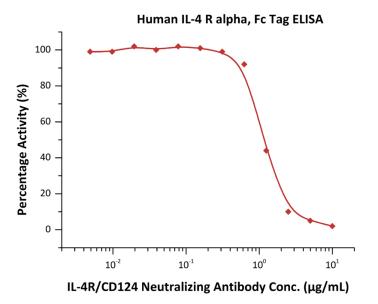




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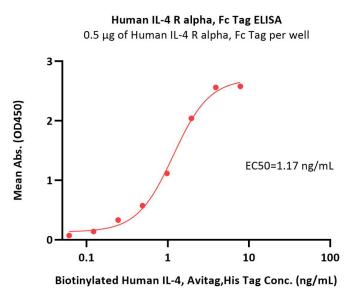
Immobilized Human IL-4, premium grade (Cat. No. IL4-H4218) at 5 µg/mL (100 µL/well)can bind Human IL-4 R alpha, Fc Tag (Cat. No. ILR-H5253) with a linear range of 1-20 ng/mL (QC tested).



Serial dilutions of Monoclonal IL-4R/CD124 Neutralizing Antibody were added into Human IL-4 R alpha, Fc Tag (Cat. No. ILR-H5253): Biotinylated Human IL-4, Avitag, His Tag (Cat. No. IL4-H82E0) binding reactions. The half maximal inhibitory concentration (IC50) is 1.144 µg/mL (Routinely 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 IL4Ra (CD124)subunit and the 70 kDa common cytokine yc chain (CD132). Interleukin 4 Receptor (IL4R) also known as CD124, IL4Ra 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-



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).

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.



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