Catalog # ILR-H525b



#### Synonym

IL-4 R alpha & IL-13 R alpha 1, IL4RA & IL13RA1

#### Source

Human IL-4 R alpha & IL-13 R alpha 1 Protein, Fc Tag&Fc Tag(ILR-H525b) is expressed from human 293 cells (HEK293). It contains AA Met 26 - His 232 & Gly 22 - Thr 343 (Accession # <u>P24394-1</u> & <u>NP\_001551.1</u>). Predicted N-terminus: Met 26 & Gly 22

## **Molecular Characterization**

IL4Ra (Met 26 - His 232)	Fc(Pro 100 - Lys 330)
P24394-1	P01857
IL13Ra1 (Gly 22 - Thr 343)	Fc(Pro 100 - Lys 330)
NP_001551.1	P01857

Human IL-4 R alpha & IL-13 R alpha 1 Protein, Fc Tag&Fc Tag is produced by co-expression of IL-4 R alpha and IL-13 R alpha 1, has a calculated MW of 50.2 kDa & 63.1 kDa. Subunit IL-4 R alpha is fused with a human IgG1 Fc tag at the C-terminus and subunit IL-13 R alpha 1 is fused with a human IgG1 Fc tag at the C-terminus. The protein migrates as 65-95 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.

# Purity

>95% as determined by SDS-PAGE.

>90% as determined by SEC-MALS.

## Formulation

Lyophilized from 0.22  $\mu$ m 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**



Human IL-4 R alpha & IL-13 R alpha 1 Protein, Fc Tag&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</u>

# SEC-MALS



The purity of Human IL-4 R alpha & IL-13 R alpha 1 Protein, Fc Tag&Fc Tag (Cat. No. ILR-H525b) is more than 90% and the molecular weight of this protein is around 140-170 kDa verified by SEC-MALS.

Protein Marker).

<u>Report</u>

## **Bioactivity-ELISA**





12/11/2024

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BIOSYSTEMS



Immobilized Human IL-4 R alpha & IL-13 R alpha 1 Protein, Fc Tag&Fc Tag (Cat. No. ILR-H525b) at 5  $\mu$ g/mL (100  $\mu$ L/well) can bind Human IL-4, His Tag (Cat. No. IL4-H52H9) with a linear range of 0.6-5 ng/mL (QC tested).

Immobilized Human IL-13 Protein, His Tag (Cat. No. IL3-H52H4) at 5  $\mu$ g/mL (100  $\mu$ L/well) can bind Human IL-4 R alpha & IL-13 R alpha 1 Protein, Fc Tag&Fc Tag (Cat. No. ILR-H525b) with a linear range of 0.02-0.625  $\mu$ g/mL (Routinely tested).

## Background

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 IL13Ra1 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**



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