Catalog # ILR-C52H8



#### Synonym

IL4R,CD124,IL4RA

#### Source

Cynomolgus IL-4 R alpha, His Tag (ILR-C52H8) is expressed from human 293 cells (HEK293). It contains AA Met 26 - Arg 232 (Accession # <u>G7Q0S7</u>). Predicted N-terminus: Met 26

## **Molecular Characterization**

IL-4 R alpha(Met 26 - Arg 232) G7Q0S7 Poly-his

This protein carries a polyhistidine tag at the C-terminus.

The protein has a calculated MW of 25.6 kDa. The protein migrates as 37-50 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:

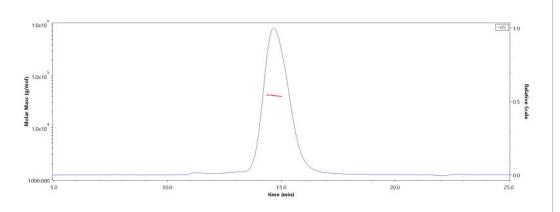
- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

## SDS-PAGE

kDa	М	R
180 130 95	=	
65 55	=	
43		
33		
25		
17		

Cynomolgus IL-4 R alpha Protein, His 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 Cynomolgus IL-4 R alpha Protein, His Tag (Cat. No. ILR-C52H8) is more than 90% and the molecular weight of this protein is around 36-49 kDa verified by SEC-MALS.

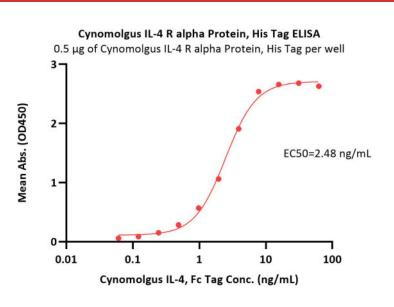


**Bioactivity-ELISA** 





Catalog # ILR-C52H8



Immobilized Cynomolgus IL-4 R alpha Protein, His Tag (Cat. No. ILR-C52H8) at 5  $\mu$ g/mL (100  $\mu$ L/well) can bind Cynomolgus IL-4, Fc Tag (Cat. No. IL4-C5259) with a linear range of 0.06-8 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 IL4R $\alpha$  (CD124)subunit and the 70 kDa common cytokine  $\gamma$ c chain (CD132). Interleukin 4 Receptor (IL4R) also known as CD124, IL4R $\alpha$  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**



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