

### Synonym

IL2RA,CD25,p55,IL2-RA,IL-2-RA

### Source

Mouse IL-2 R alpha, His Tag(ILA-M52H9) is expressed from human 293 cells (HEK293). It contains AA Glu 22 - Lys 236 (Accession # P01590-1). Predicted N-terminus: Glu 22

### **Molecular Characterization**

IL-2 R alpha(Glu 22 - Lys 236) P01590-1

Poly-his

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

The protein has a calculated MW of 26.6 kDa. The protein migrates as 40-60 kDa 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**

>90% as determined by SDS-PAGE.

#### **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**

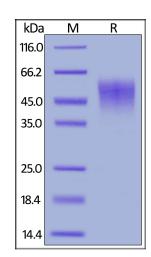
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

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**

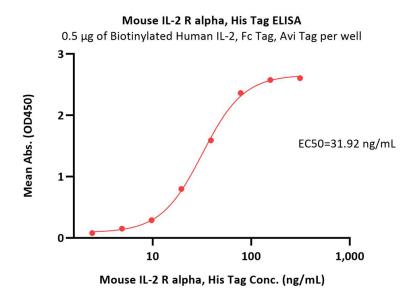


Mouse IL-2 R alpha, His Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 90%.

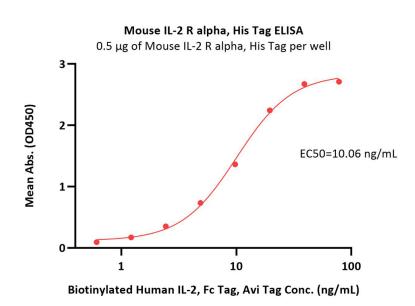
## **Bioactivity-ELISA**





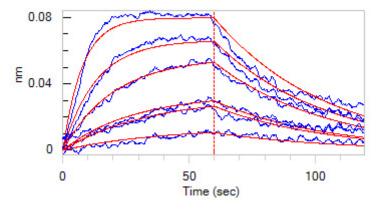


Immobilized Biotinylated Human IL-2, Fc Tag, Avi Tag (Cat. No. IL2-H82F3) at 5  $\mu$ g/mL (100  $\mu$ L/well) on Streptavidin (Cat. No. STN-N5116) precoated (0.5  $\mu$ g/well) plate, can bind Mouse IL-2 R alpha, His Tag (Cat. No. ILA-M52H9) with a linear range of 5-40 ng/mL (QC tested).



Immobilized Mouse IL-2 R alpha, His Tag (Cat. No. ILA-M52H9) at 5  $\mu$ g/mL (100  $\mu$ L/well) can bind Biotinylated Human IL-2, Fc Tag, Avi Tag (Cat. No. IL2-H82F3) with a linear range of 0.6-10 ng/mL (Routinely tested).

# **Bioactivity-BLI**



Loaded Mouse IL-2 R alpha, His tag (Cat. No. ILA-M52H9) on HIS1K Biosensor, can bind Human IL-2, Tag Free with an affinity constant of 21.4 nM as determined in BLI assay (ForteBio Octet Red96e) (Routinely tested).

## Background

Interleukin-2 receptor subunit alpha (IL2RA) is also known as IL-2R subunit alpha, IL-2-RA, IL2-RA, TAC antigen, p55, CD antigen CD25, is a type I transmembrane glycoprotein. IL2RA is expressed on activated T cells and regulatory T cells, and is capable of binding IL2 with low affinity by itself. However, a ligand-induced high affinity heterotrimeric receptor complex is produced when IL2RA is associated non-covelently with the IL2 receptor beta and gamma chain, and subsequently initiates the intacellular signal pathways such as MAPK or JAK/STAT. On dendritic cells (DC), CD25 has been previously regarded as an activation marker, while both murine and human DC can express CD25, they do not express the beta-chain of the IL-2 receptor, which is indispensable for the execution of IL-2 signaling.