

### Synonym

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

### Source

Human IL-2 R alpha Protein, Fc Tag(ILA-H5251) is expressed from human 293 cells (HEK293). It contains AA Glu 22 - Cys 213 (Accession # [NP\\_000408](#) ).

Predicted N-terminus: Glu 22

### Molecular Characterization

IL-2 R alpha(Glu 22 - Cys 213) NP_000408	Fc(Pro 100 - Lys 330) P01857
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This protein carries a human IgG1 Fc tag at the C-terminus

The protein has a calculated MW of 48.4 kDa. The protein migrates as 60-66 kDa under reducing (R) condition (SDS-PAGE) due to glycosylation.

### 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 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

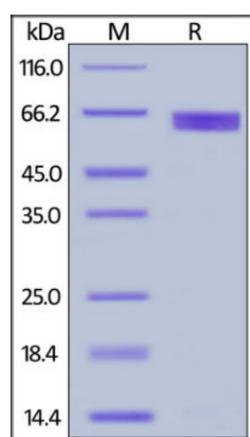
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

*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.

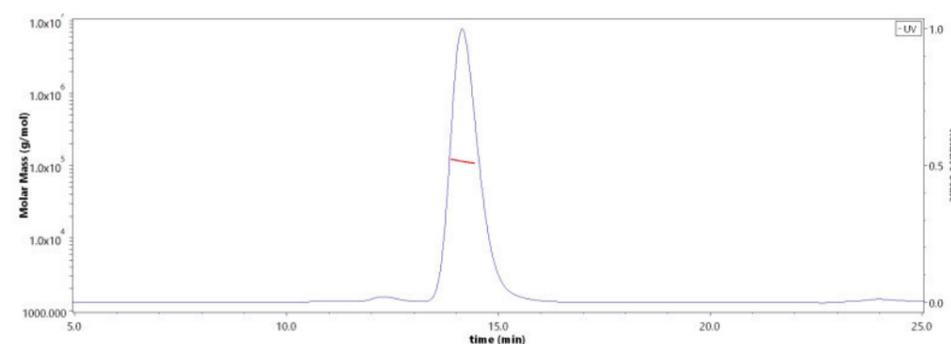
### SDS-PAGE



Human IL-2 R alpha Protein, 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%.

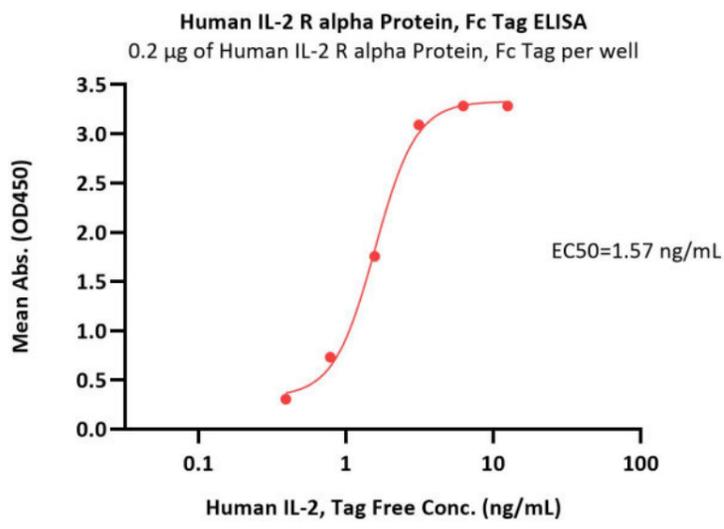
### Bioactivity-ELISA

### SEC-MALS



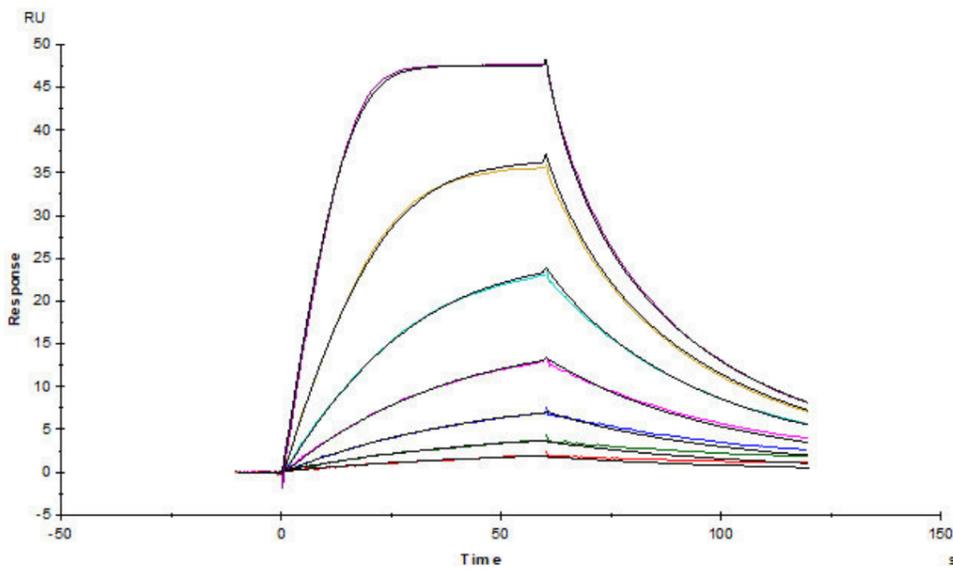
The purity of Human IL-2 R alpha Protein, Fc Tag (Cat. No. ILA-H5251) is more than 90% and the molecular weight of this protein is around 102-124 kDa verified by SEC-MALS.

[Report](#)



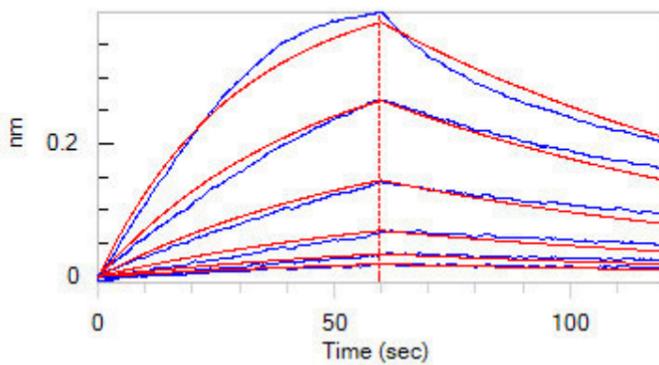
Immobilized Human IL-2 R alpha Protein, Fc Tag (Cat. No. ILA-H5251) at 2 µg/mL (100 µL/well) can bind Human IL-2, Tag Free with a linear range of 0.4-3 ng/mL (QC tested).

**Bioactivity-SPR**



Human IL-2 R alpha Protein, Fc Tag (Cat. No. ILA-H5251) captured on CM5 chip via anti-human IgG Fc antibody can bind Human IL-2, Tag Free with an affinity constant of 10.1 nM as determined in a SPR assay (Biacore T200) (Routinely tested)

**Bioactivity-BLI**



Loaded Human IL-2 R alpha, Fc Tag (Cat. No. ILA-H5251) on Protein A Biosensor, can bind Human IL-2, Tag Free with an affinity constant of 43.2 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-covalently with the IL2 receptor beta and gamma chain, and subsequently initiates the intracellular 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.

## Clinical and Translational Updates

Please contact us via [TechSupport@acrobiosystems.com](mailto:TechSupport@acrobiosystems.com) if you have any question on this product.