

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 |
|---|---------------------------------|

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

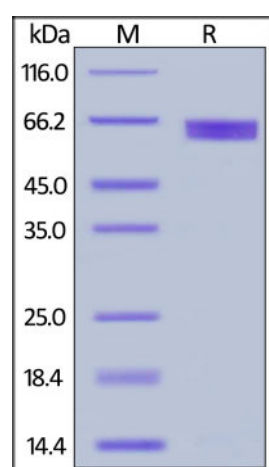
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

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.

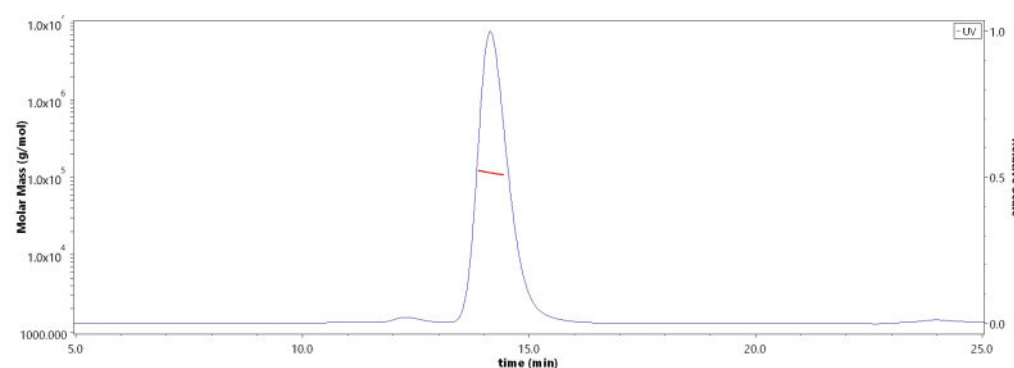
SDS-PAGE



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%.

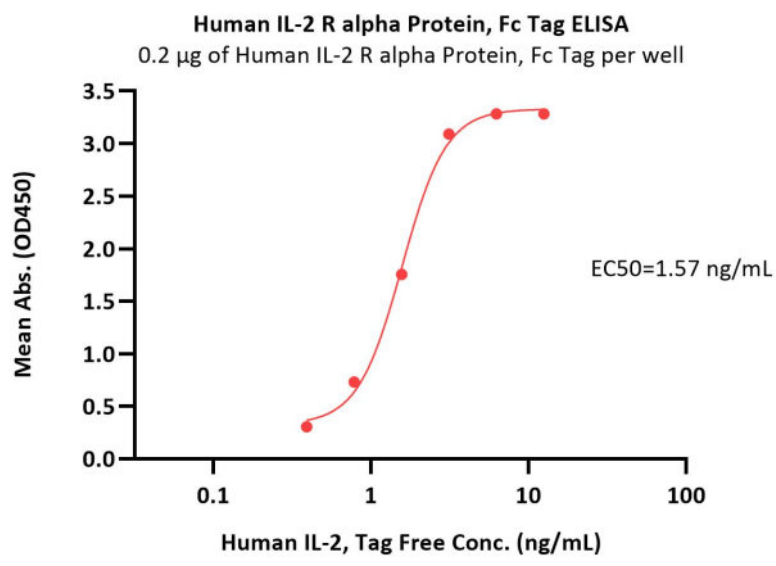
Bioactivity-ELISA

SEC-MALS



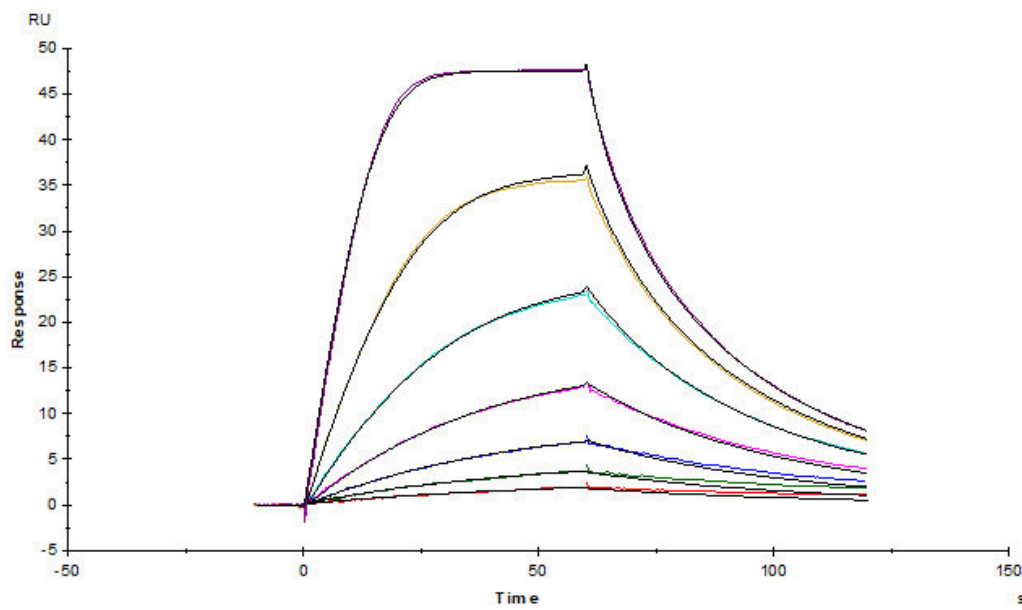
The purity of Human IL-2 R alpha Protein, Fc Tag (Cat. No. ILA-H5251) is more than 90% and the molecular weight of this protein is around 102-124 kDa verified by SEC-MALS.

[Report](#)



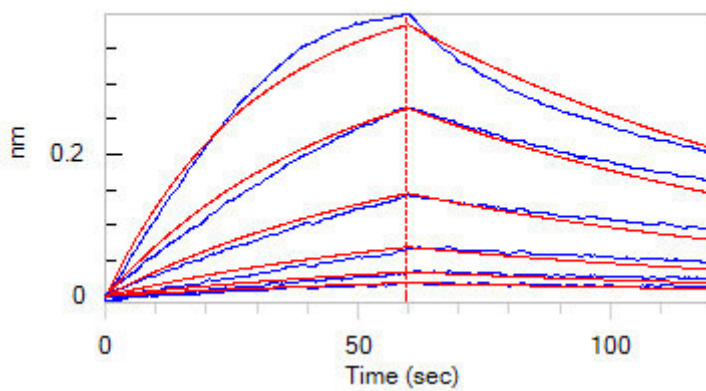
Immobilized Human IL-2 R alpha Protein, Fc Tag (Cat. No. ILA-H5251) at 2 µg/mL (100 µL/well) can bind Human IL-2, Tag Free with a linear range of 0.4-3 ng/mL (QC tested).

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 if you have any question on this product.