Human IL-2 R alpha / CD25 Protein, His Tag

Catalog # ILA-H52H9

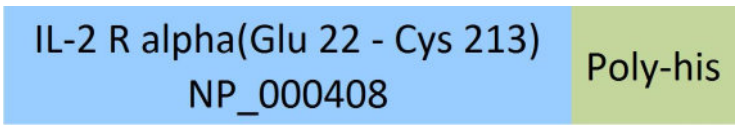
Synonym

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

Source

Human IL-2 R alpha, His Tag(ILA-H52H9) is expressed from human 293 cells (HEK293). It contains AA Glu 22 - Cys 213 (Accession # NP_000408).
Predicted N-terminus: Glu 22

Molecular Characterization



This protein carries a polyhistidine tag at the C-terminus

The protein has a calculated MW of 23.6 kDa. The protein migrates as 34-46 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.

Formulation

Lyophilized from 0.22 μm 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

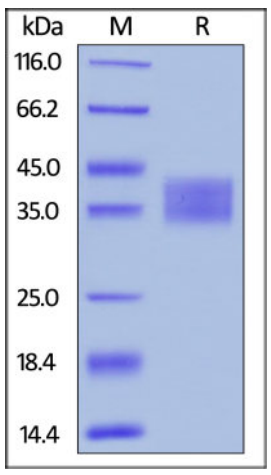
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

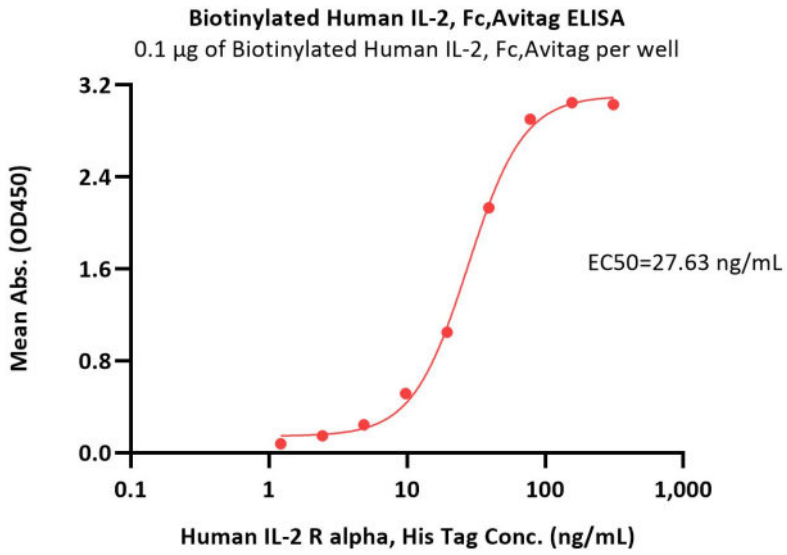
- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

SDS-PAGE



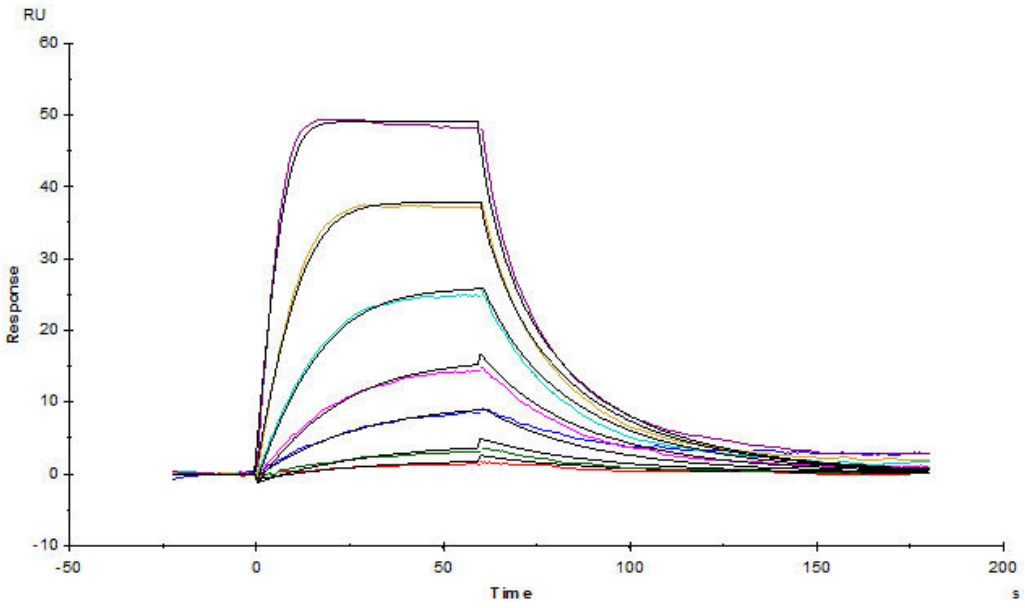
Human IL-2 R alpha, His Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95%.

Bioactivity-ELISA



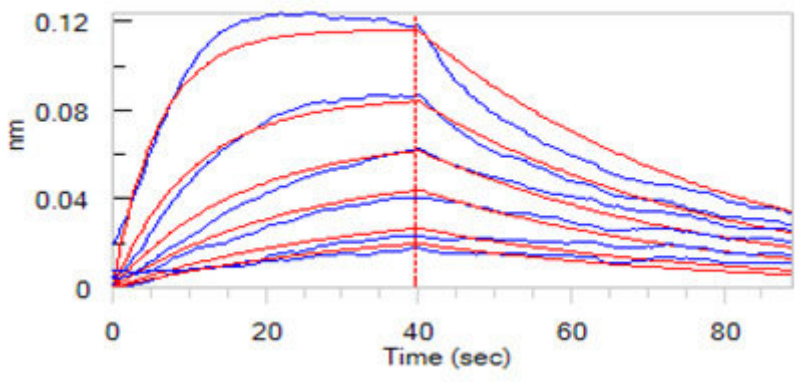
Immobilized Biotinylated Human IL-2, Fc,Avitag (Cat. No. IL2-H82F3) at 1 μg/mL (100 μL/well) on streptavidin precoated (0.2 μg/well) plate, can bind Human IL-2 R alpha, His Tag (Cat. No. ILA-H52H9) with a linear range of 1-39 ng/mL (QC tested).

Bioactivity-SPR



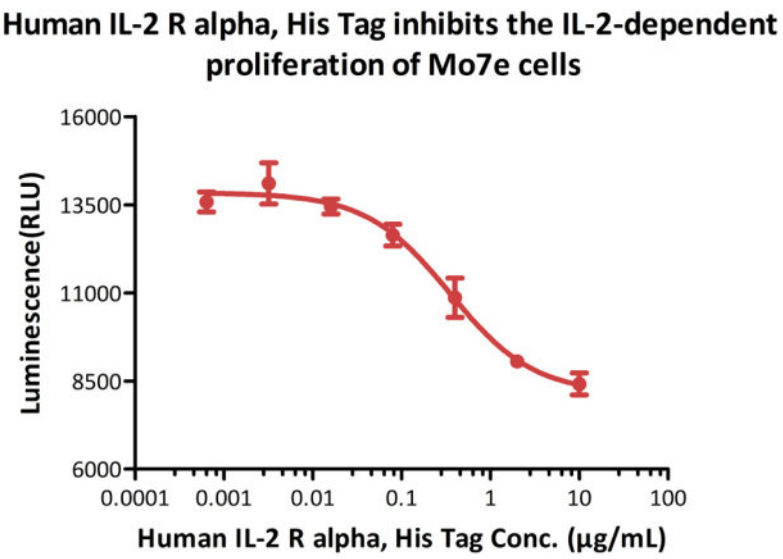
Human IL-2 R alpha, His Tag (Cat. No. ILA-H52H9) captured on CM5 chip via anti-His antibody, can bind Human IL-2, Tag Free with an affinity constant of 29.9 nM as determined in a SPR assay (Biacore T200) (Routinely tested).

Bioactivity-BLI



Loaded Human IL-2 R alpha, His Tag (Cat. No. ILA-H52H9) on HIS1K Biosensor, can bind Human IL-2, Tag Free with an affinity constant of 18 nM as determined in BLI assay (ForteBio Octet Red96e) (Routinely tested).

Bioactivity-Bioactivity CELL BASE



Human IL-2 R alpha, His Tag (Cat. No. ILA-H52H9) inhibits the IL-2 dependent proliferation of Mo7e cells. The EC50 for this effect is 0.35-0.77 µg/mL (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.

Clinical and Translational Updates

Please contact us via TechSupport@acrobiosystems.com if you have any question on this product.