

Human IL-22 R alpha 1 Superstable Mutant Protein, Fc Tag (MALS verified)

Catalog # IL1-H5257



BIOSYSTEMS
Acro

Synonym

Interleukin-22 receptor subunit alpha-1, IL-22 receptor subunit alpha-1, IL-22R-alpha-1, IL-22RA1, Cytokine receptor class-II member 9, Cytokine receptor family 2 member 9, CRF2-9, ZcytoR11, IL22RA1 , IL22R

Source

Human IL-22 R alpha 1 Superstable Mutant Protein, Fc Tag (IL1-H5257) is expressed from human 293 cells (HEK293). It contains AA Pro 18 - Thr 228 (Accession # [Q8N6P7-1](#)).

Predicted N-terminus: Pro 18

Molecular Characterization

mutations	
IL22RA1 (Pro 18 - Thr 228) Q8N6P7-1	Fc(Pro 100 - Lys 330) P01857-1

This protein carries a human IgG1 Fc tag at the C-terminus.

The protein has a calculated MW of 50.5 kDa. The protein migrates as 55-65 kDa when calibrated against [Star Ribbon Pre-stained Protein Marker](#) under reducing (R) condition (SDS-PAGE) due to glycosylation.

Within the expressed region, several mutations were introduced to optimize the protein expression and stability.

Endotoxin

Less than 1.0 EU per µg by the LAL method / rFC method.

Purity

>90% as determined by SDS-PAGE.

>90% as determined by SEC-MALS.

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.

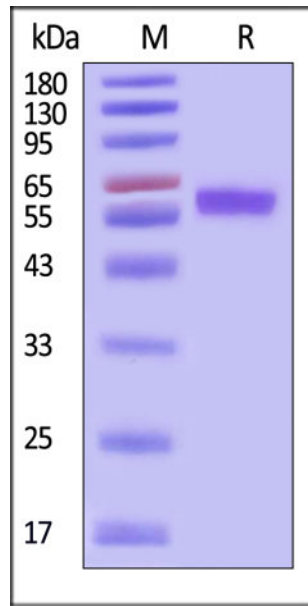
This product is stable after storage at:

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

ACRO Quality Management System

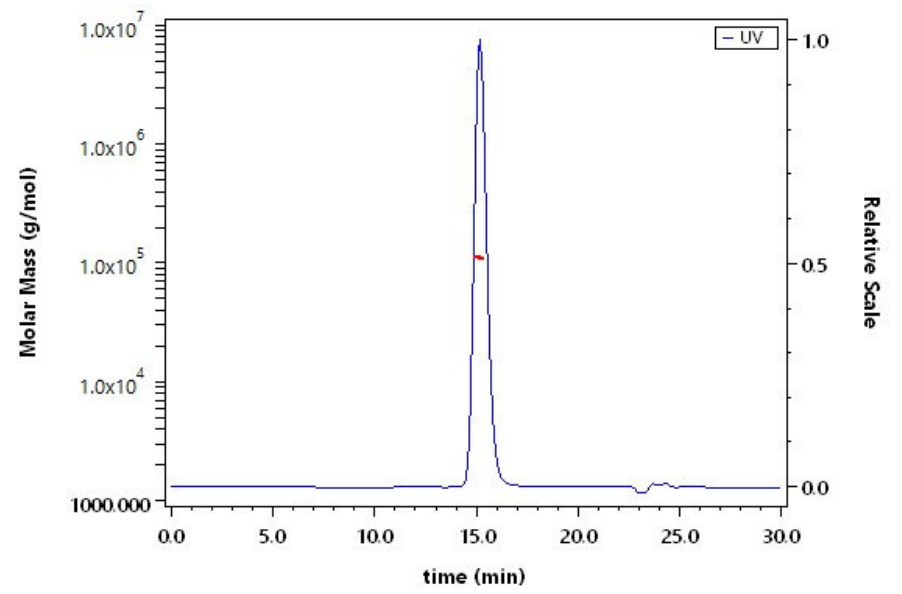
- [QMS\(ISO, GMP\)](#)
- [Quality Advantages](#)
- [Quality Control Process](#)

SDS-PAGE



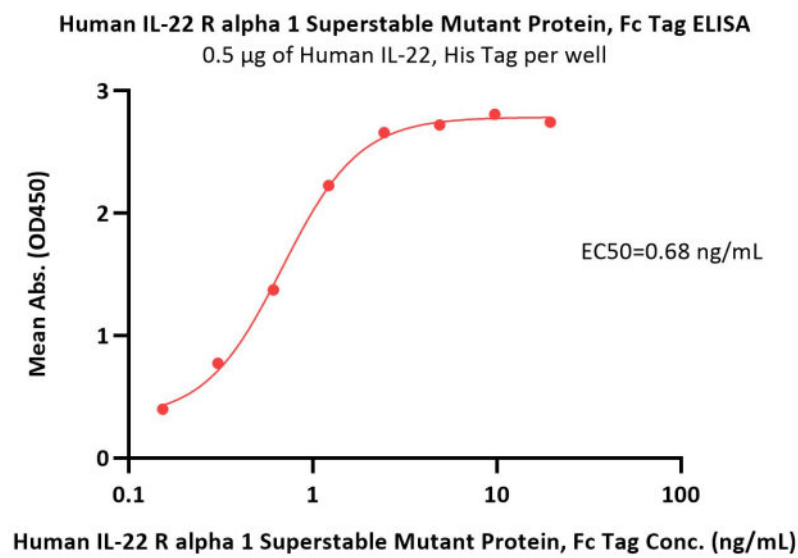
Human IL-22 R alpha 1 Superstable Mutant Protein, Fc Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 90% (With [Star Ribbon Pre-stained Protein Marker](#)).

SEC-MALS



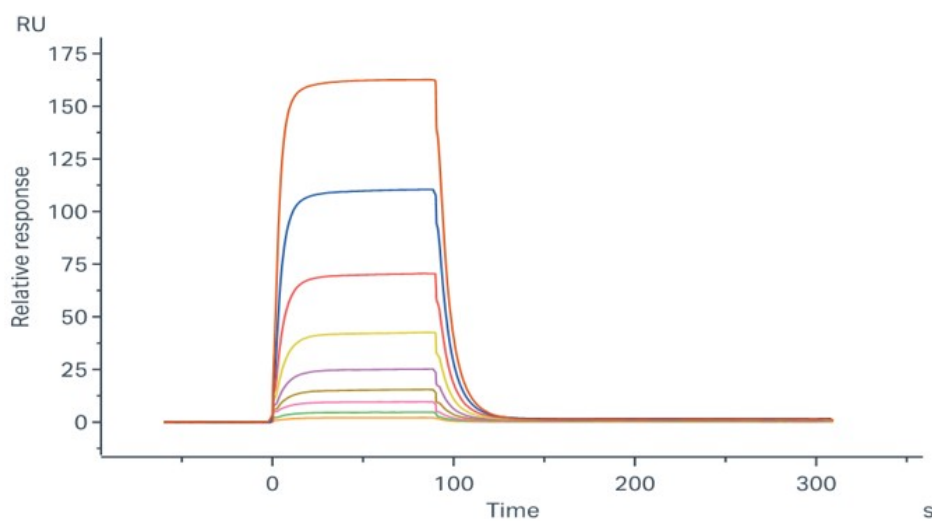
The purity of Human IL-22 R alpha 1 Superstable Mutant Protein, Fc Tag (Cat. No. IL1-H5257) is more than 90% and the molecular weight of this protein is around 100-130 kDa verified by SEC-MALS.

Bioactivity-ELISA

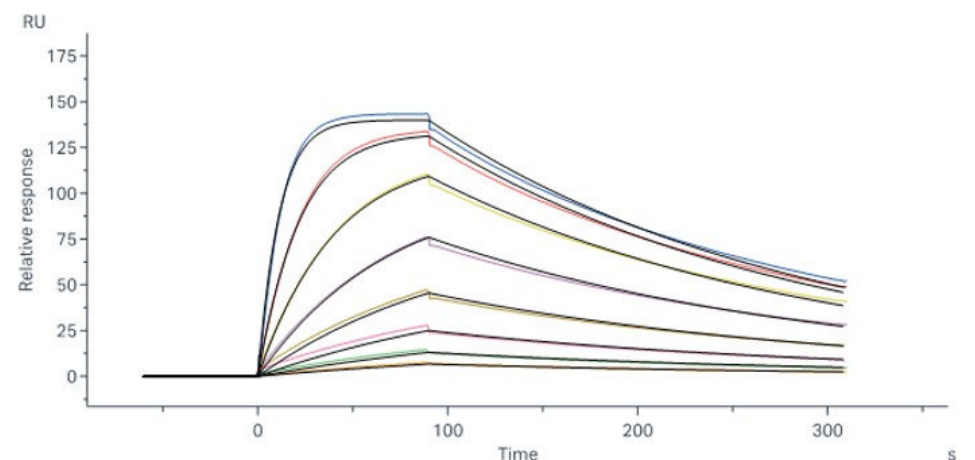


Immobilized Human IL-22, His Tag (Cat. No. IL2-H524a) at 5 $\mu\text{g/mL}$ (100 $\mu\text{L/well}$) can bind Human IL-22 R alpha 1 Superstable Mutant Protein, Fc Tag (Cat. No. IL1-H5257) with a linear range of 0.2-2 ng/mL (QC tested).

Bioactivity-SPR



Human IL-22 R alpha 1 Superstable Mutant Protein, Fc Tag (Cat. No. IL1-H5257) captured on Protein A Chip can bind Human IL-24 Protein, His Tag (Cat. No. IL4-H52H4) with an affinity constant of 3.28 μM as determined in a SPR assay (Biacore 8K) (Routinely tested).



Human IL-22 R alpha 1 Superstable Mutant Protein, Fc Tag (Cat. No. IL1-H5257) captured on Protein A Chip can bind Human IL-22, His Tag (Cat. No. IL2-H524a) with an affinity constant of 5.6 nM as determined in a SPR assay (Biacore 8K) (Routinely tested).

Background

Interleukin-22 receptor subunit alpha-1 (IL22RA1) is a component of the receptor for IL20, IL22 and IL24. Component of IL22 receptor formed by IL22RA1 and IL10RB enabling IL22 signaling via JAK/STAT pathways. IL22 also induces activation of MAPK1/MAPK3 and Akt kinases pathways. Component of one of the

receptor for IL20 and IL24 formed by IL22RA1 and IL20RB also signaling through STATs activation. Mediates IL24 antiangiogenic activity as well as IL24 inhibitory effect on endothelial cell tube formation and differentiation.

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