

Human IL-13 R alpha 1 & IL-13 Protein, Tag Free&His Tag (MALS verified)

Catalog # IL3-H52W3



BIOSYSTEMS
Acro

Synonyms

IL-13 R alpha 1 & IL-13, IL13RA1 & IL13

Source

Human IL-13 R alpha 1 & IL-13 Protein, Tag Free&His Tag (IL3-H52W3) is expressed from human 293 cells (HEK293). It contains AA Gly 22 - Thr 343 (IL13RA1) & Gly 35 - Asn 146 (IL13) (Accession # [P78552-1](#) (IL13RA1) & [P35225](#) (IL13)).

Predicted N-terminus: Gly 22 (IL13RA1) & Gly 35 (IL13)

Molecular Characterization

The protein has a calculated MW of 42.2 kDa (IL13RA1) & 19.0 kDa (IL13). The protein migrates as 29-39 kDa when calibrated against [Star Ribbon Pre-stained Protein Marker](#) under reducing (R) condition (SDS-PAGE).

The protein is designed as a heterodimer.

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.

Shipping and Storage

This product is shipped at ambient temperature.

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

Please avoid repeated freeze-thaw cycles.

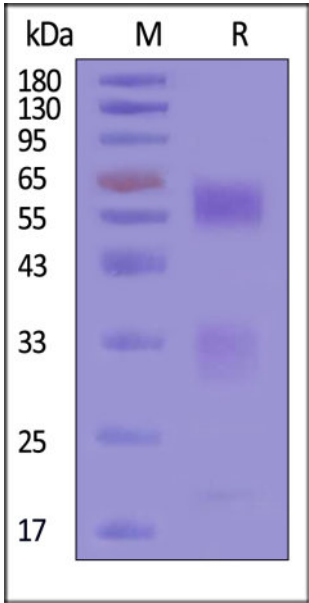
This product is stable after storage at:

- -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

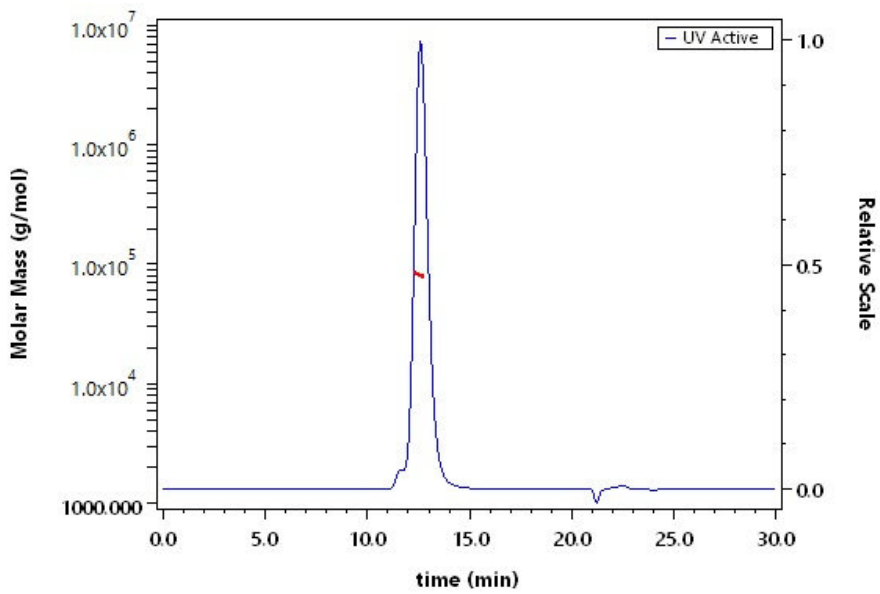
- [QMS\(ISO, GMP\)](#).
- [Quality Advantages](#)
- [Quality Control Process](#)

SDS-PAGE



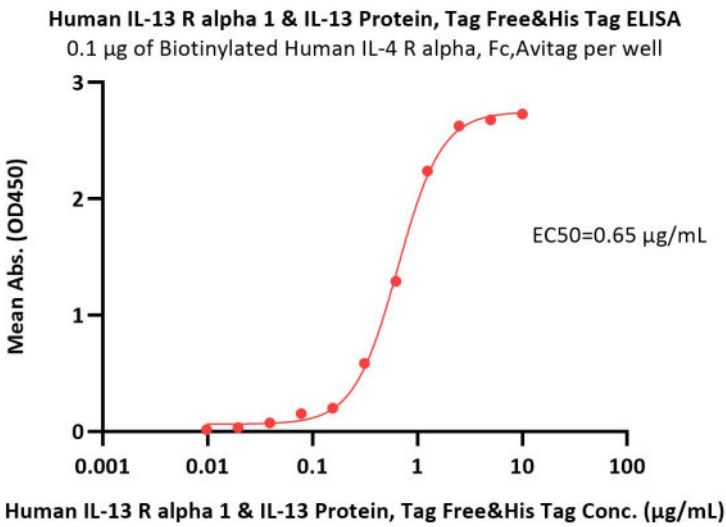
Human IL-13 R alpha 1 & IL-13 Protein, Tag Free&His Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 90% (With [Star Ribbon Pre-stained Protein Marker](#)).

SEC-MALS



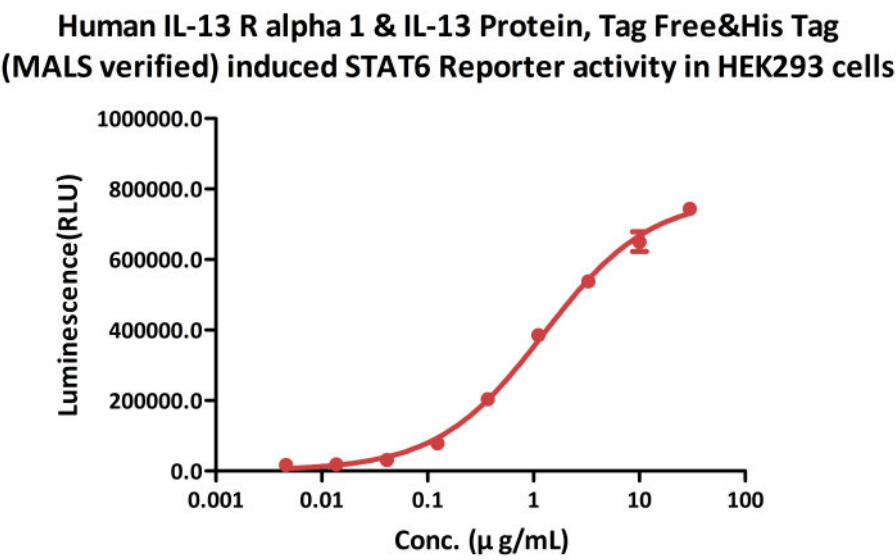
The purity of Human IL-13 R alpha 1 & IL-13 Protein, Tag Free&His Tag (Cat. No. IL3-H52W3) is more than 90% and the molecular weight of this protein is around 70-100 kDa verified by SEC-MALS.

Bioactivity-ELISA



Immobilized Biotinylated Human IL-4 R alpha, Fc,Avitag (Cat. No. ILR-H82F4) at 1 µg/mL (100 µL/well) on streptavidin (Cat. No. STN-N5116) precoated (0.5 µg/well) plate can bind Human IL-13 R alpha 1 & IL-13 Protein, Tag Free&His Tag (Cat. No. IL3-H52W3) with a linear range of 0.01-1.25 µg/mL (QC tested).

Bioactivity-CELL BASE



Human IL-13 R alpha 1 & IL-13 Protein, Tag Free&His Tag (MALS verified) (Cat. No. IL3-H52W3) induced STAT6 Reporter activity in HEK293 cells. The EC50 of the effect is 1.25 µg/mL (Routinely tested).

Background

Interleukin-13 (IL-13) is a pleiotropic cytokine produced predominantly by T helper 2 (Th2) cells, mast cells, basophils, and group 2 innate lymphoid cells (ILC2s). IL-13 binds to the IL-13R α 1 subunit with low-to-moderate affinity to form an initial binary complex. This binary complex subsequently recruits the shared IL-4R α chain to form a high-affinity heterodimeric Type II receptor complex (IL-4R α /IL-13R α 1). The functional dimer triggers downstream intracellular signaling, primarily through the JAK/STAT6 pathway. IL-13 plays a central role in type 2 immune responses, driving IgE synthesis, goblet cell metaplasia, mucus overproduction, smooth muscle contraction, and tissue fibrosis. It is a critical driver of allergic diseases such as asthma, atopic dermatitis, chronic rhinosinusitis with nasal polyps, and eosinophilic esophagitis.



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