

Human IL-13 (E31K) Protein, Fc Tag (MALS verified)

Catalog # IL3-H5259



BIOSYSTEMS
Acro

Synonym

IL13, ALRH, BHR1, MGC116786, MGC116788, MGC116789, P600, Interleukin-13

Source

Human IL-13 (E31K) Protein, Fc Tag (IL3-H5259) is expressed from human 293 cells (HEK293). It contains AA Gly 21 - Asn 132 (Accession # [AAK53823.1](#) (E31K)).

Predicted N-terminus: Gly 21

Molecular Characterization

E31K

IL-13 (Gly 21 - Asn 132)
AAK53823.1

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 38.8 kDa. The protein migrates as 48-55 kDa when calibrated against [Star Ribbon Pre-stained Protein Marker](#) under reducing (R) condition (SDS-PAGE) due to glycosylation.

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.

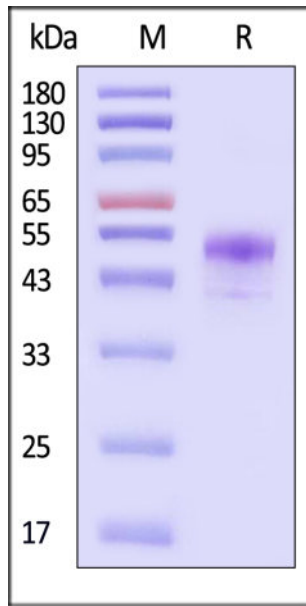
This product is stable after storage at:

- -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

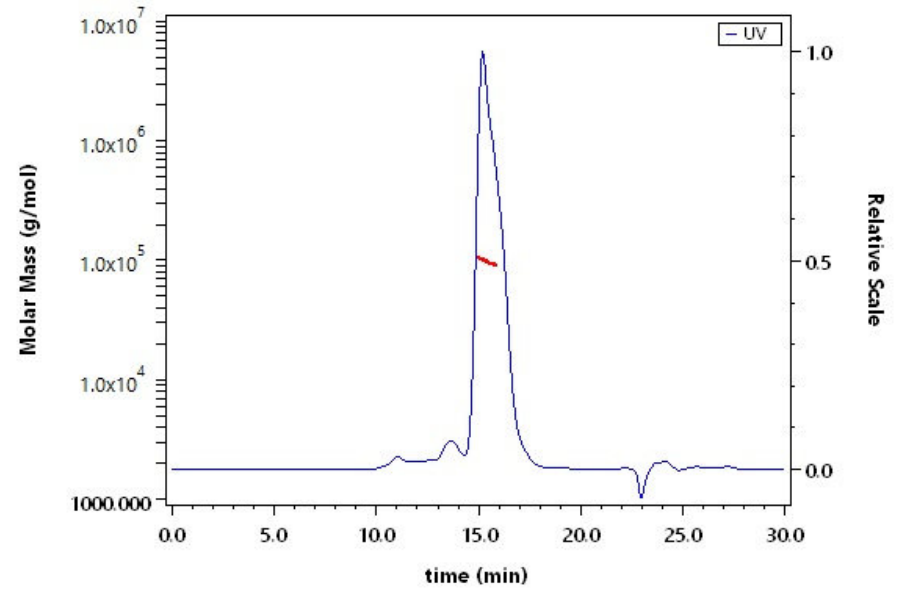
- [QMS\(ISO, GMP\)](#)
- [Quality Advantages](#)
- [Quality Control Process](#)

SDS-PAGE



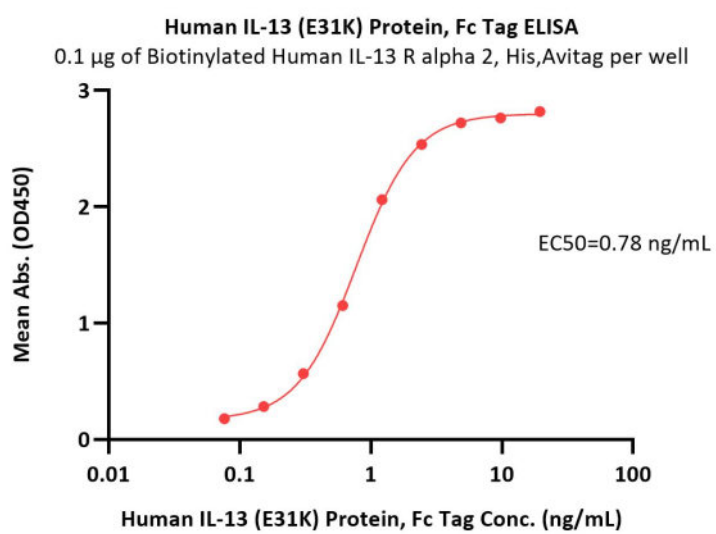
Human IL-13 (E31K) Protein, Fc Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 90% (With [Star Ribbon Pre-stained Protein Marker](#)).

SEC-MALS

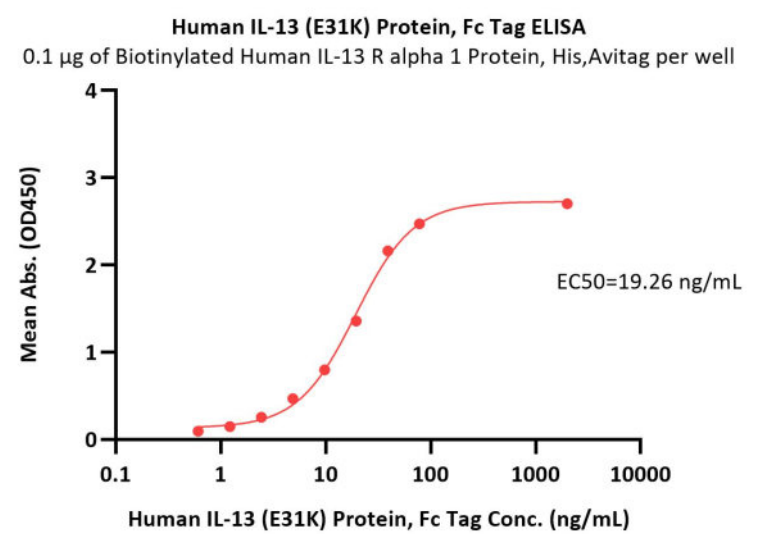


The purity of Human IL-13 (E31K) Protein, Fc Tag (Cat. No. IL3-H5259) is more than 90% and the molecular weight of this protein is around 85-110 kDa verified by SEC-MALS.

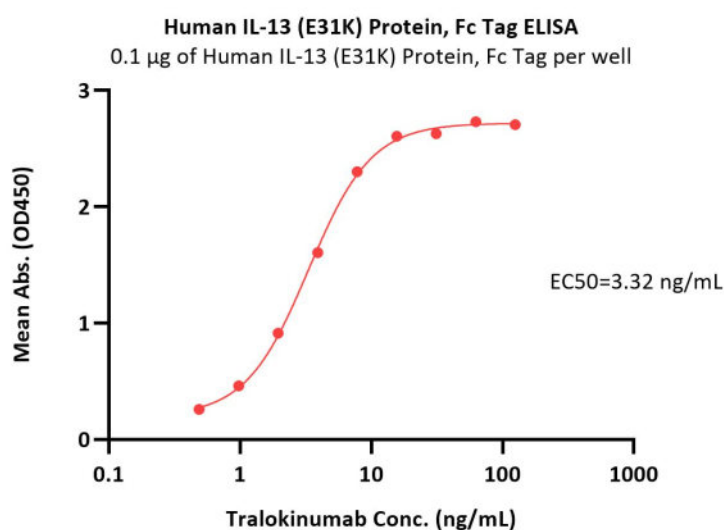
Bioactivity-ELISA



Immobilized Biotinylated Human IL-13 R alpha 2, His,Avitag (Cat. No. IL2-H82E6) at 1 µg/mL (100 µL/well) on streptavidin (Cat. No. STN-N5116) precoated (0.5 µg/well) plate can bind Human IL-13 (E31K) Protein, Fc Tag (Cat. No. IL3-H5259) with a linear range of 0.08-2 ng/mL (QC tested).

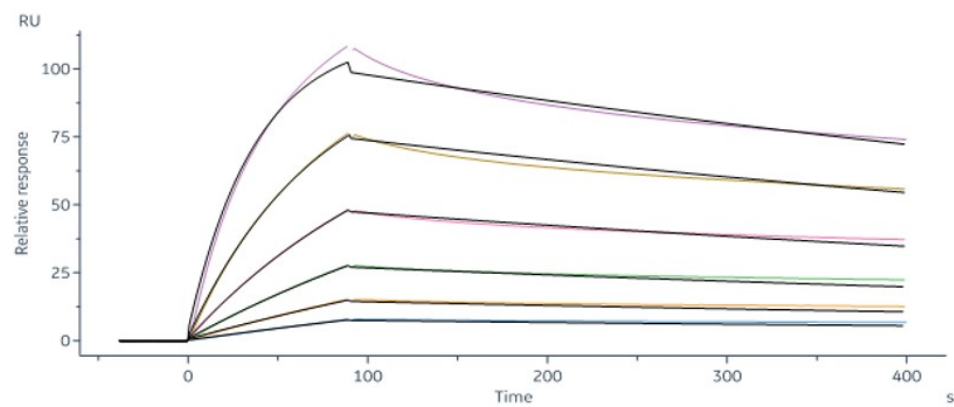


Immobilized Biotinylated Human IL-13 R alpha 1 Protein, His,Avitag (Cat. No. IL1-H82E8) at 1 µg/mL (100 µL/well) on streptavidin (Cat. No. STN-N5116) precoated (0.5 µg/well) plate can bind Human IL-13 (E31K) Protein, Fc Tag (Cat. No. IL3-H5259) with a linear range of 0.6-39 ng/mL (Routinely tested).

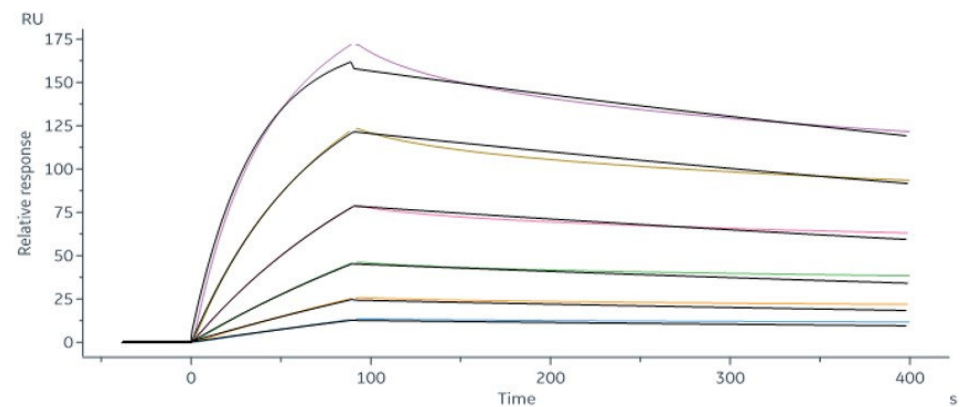


Immobilized Human IL-13 (E31K) Protein, Fc Tag (Cat. No. IL3-H5259) at 1 µg/mL (100 µL/well) can bind Tralokinumab with a linear range of 0.5-8 ng/mL (Routinely tested).

Bioactivity-SPR



Human IL-4 R alpha & IL-13 R alpha 1 Protein, Fc Tag&Fc Tag (Cat. No. ILR-H525b) immobilized on CM5 Chip can bind Human IL-13 (E31K) Protein, Fc Tag (Cat. No. IL3-H5259) with an affinity constant of 2.47 nM as determined in a SPR assay (Biacore 8K) (Routinely tested).



Human IL-13 R alpha 1 Protein, His Tag (Cat. No. TFR-C524a) immobilized on CM5 Chip can bind Human IL-13 (E31K) Protein, Fc Tag (Cat. No. IL3-H5259) with an affinity constant of 2.08 nM as determined in a SPR assay (Biacore 8K) (Routinely tested).

Background

Interleukin 13 (IL13) is also known as ALRH, BHR1 and P600, is a single-chain glycosylated polypeptide, and is a cytokine critical in regulating inflammatory and immune responses. IL13 is secreted by many cell types, but especially by T helper type 2 (Th2) cells. IL-13 induces its effects through a multi-subunit receptor that includes the alpha chain of the IL-4 receptor (IL-4R α) and at least one of two known IL-13-specific binding chains. The functions of IL-13 overlap considerably with those of IL-4, especially with regard to changes induced on hematopoietic cells, but these effects are probably less important given the more potent role of IL-4. IL-13 induces matrix metalloproteinases (MMPs) as part of a mechanism that protects against excessive allergic inflammation that predisposes to asphyxiation. IL-13 induces many features of allergic lung disease, including airway hyperresponsiveness, goblet cell metaplasia and mucus hypersecretion, which all contribute to airway obstruction.



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