

Synonym

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

Source

Human IL-13 Protein, His Tag, premium grade(IL3-H52H4) is expressed from human 293 cells (HEK293). It contains AA Gly 21 - Asn 132 (Accession # [AAK53823.1](#) ).

Predicted N-terminus: Gly 21

*Human IL-13 Protein, His Tag, premium grade (IL3-H52H4), designed for preclinical stage, has the same activity and performance with GMP Human IL-13 Protein, which enables a seamless transition from preclinical development to clinical phases. Premium Grade product offer a cost efficient alternative of GMP Grade products for the early development phase when safety of raw materials is not top priority. By using Premium Grade products in early development phase, you can transition easily into clinical and commercial phase without need to revalidate the raw materials and modify manufacturing process.*

Molecular Characterization

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

Poly-his

This protein carries a polyhistidine tag at the C-terminus.

The protein has a calculated MW of 14.2 kDa. The protein migrates as 15 kDa and 25-35 kDa when calibrated against [Star Ribbon Pre-stained Protein Marker](#) under reducing (R) condition (SDS-PAGE) due to glycosylation.

Endotoxin

Less than 0.1 EU per µg by the LAL method.

Sterility

The sterility testing was performed by membrane filtration method.

Mycoplasma

Negative.

Purity

>90% 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

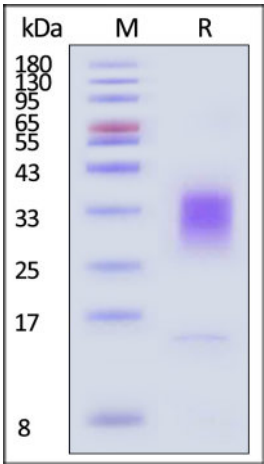
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

*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



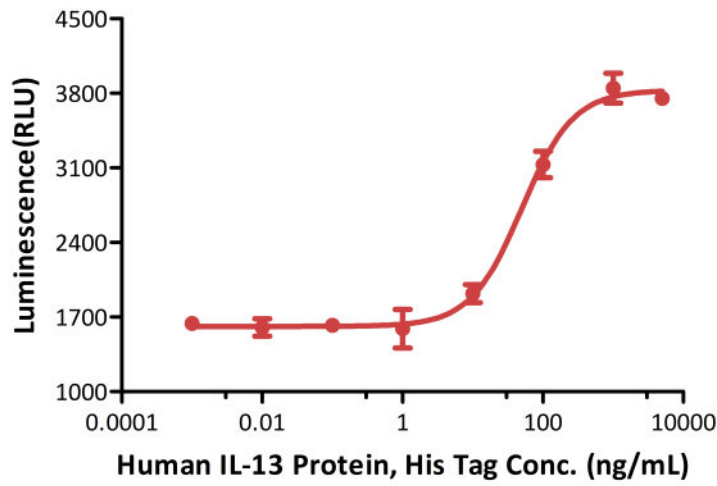
Human IL-13 Protein, His Tag, premium grade on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 90% (With [Star Ribbon Pre-stained Protein Marker](#)).

Bioactivity-Bioactivity CELL BASE

Discounts, Gifts,  
and more!

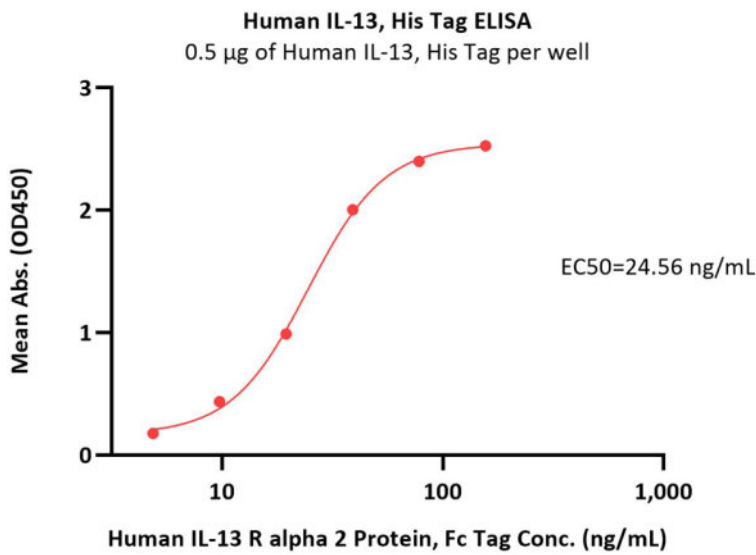


Human IL-13 Protein, His Tag stimulates proliferation of TF-1 cells

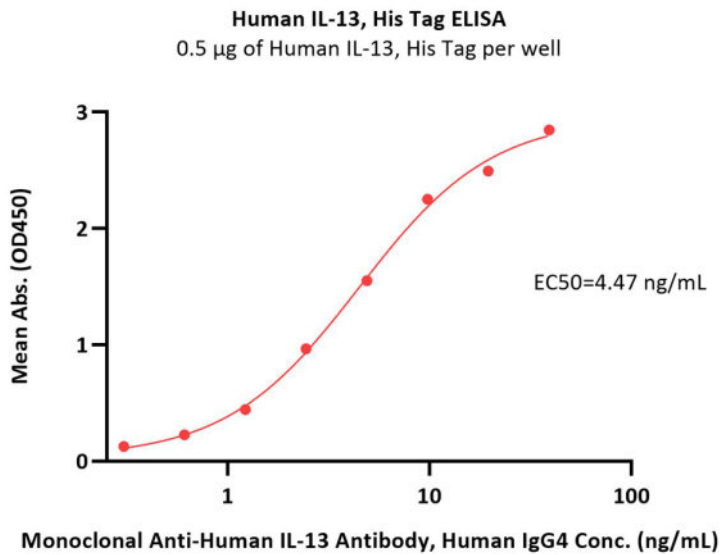


Human IL-13 Protein, His Tag, premium grade (Cat. No. IL3-H52H4) stimulates proliferation of TF-1 cells. The EC50 for this effect is 0.05-0.08 µg/mL (Routinely tested).

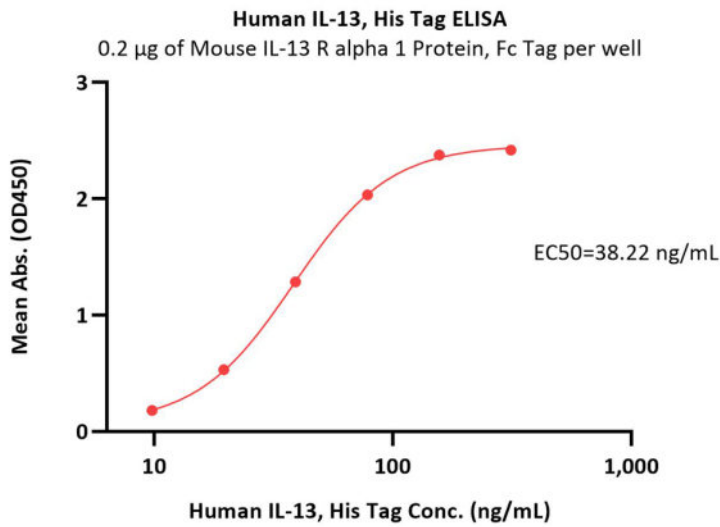
Bioactivity-ELISA



Immobilized Human IL-13 Protein, His Tag, premium grade (Cat. No. IL3-H52H4) at 5 µg/mL (100 µL/well) can bind Human IL-13RA2, Fc Tag (Cat. No. IL2-H5256) with a linear range of 5-39 ng/mL (QC tested).



Immobilized Human IL-13 Protein, His Tag, premium grade (Cat. No. IL3-H52H4) at 5 µg/mL (100 µL/well) can bind Monoclonal Anti-Human IL-13 Antibody, Human IgG4 with a linear range of 0.3-5 ng/mL (Routinely tested).

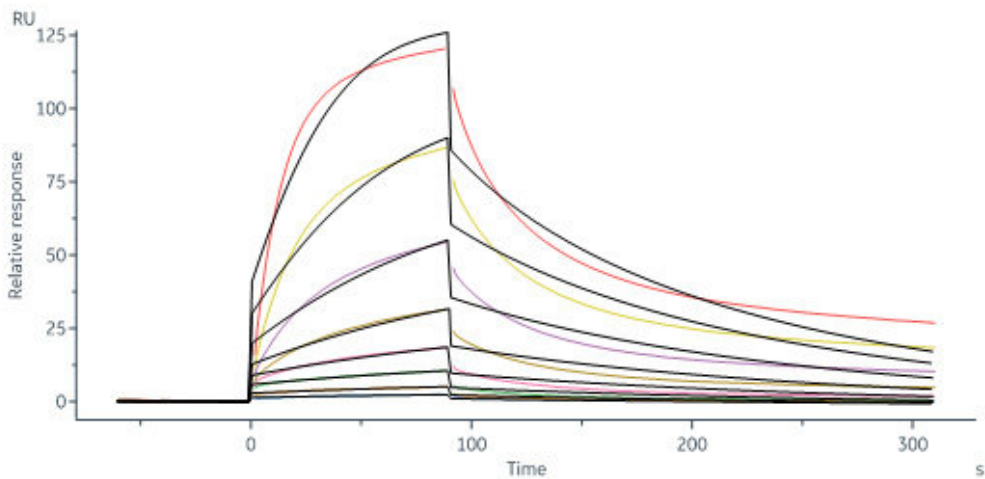


Immobilized Mouse IL-13RA1, Fc Tag (Cat. No. IL1-M5258) at 2 µg/mL (100 µL/well) can bind Human IL-13 Protein, His Tag, premium grade (Cat. No. IL3-H52H4) with a linear range of 5-39 ng/mL (Routinely tested).



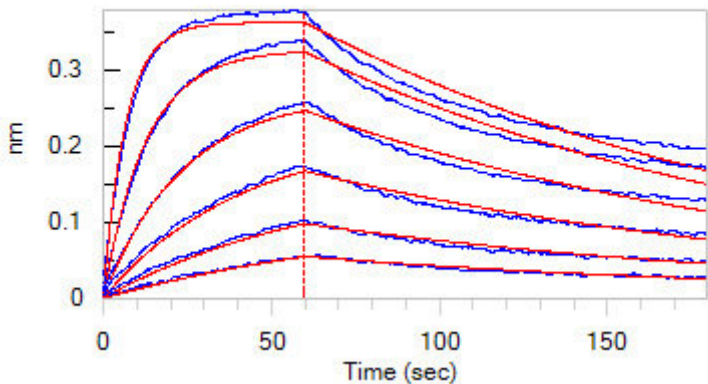


Bioactivity-SPR



Biotinylated Human IL-13 R alpha 1 Protein, His,Avitag (Cat. No. IL1-H82E8) captured on Biotin CAP-Series S Sensor Chip can bind Human IL-13 Protein, His Tag, premium grade (Cat. No. IL3-H52H4) with an affinity constant of 34.4 nM as determined in a SPR assay (Biacore 8K) (Routinely tested).

Bioactivity-BLI



Loaded Mouse IL-13RA1, Fc Tag (Cat. No. IL1-M5258) on Protein A Biosensor, can bind Human IL-13 Protein, His Tag, premium grade (Cat. No. IL3-H52H4) with an affinity constant of 22.5 nM as determined in BLI assay (ForteBio Octet Red96e) (Routinely tested).

Background

Interleukin 13 (IL13) is also known as ALRH, BHR1and 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 $\alpha$ ) 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.

Clinical and Translational Updates

Please contact us via [TechSupport@acrobiosystems.com](mailto:TechSupport@acrobiosystems.com) if you have any question on this product.

Discounts, Gifts,  
and more!

