

Human IL-3 Protein, His Tag (MALS verified)

Catalog # IL3-H52H9



BIOSYSTEMS
Acro
Surprise Inside!

Synonym

IL3,MCGF,MGC79398,MGC79399,MULTI-CSF,Interleukin-3

Source

Human IL-3 Protein, His Tag(IL3-H52H9) is expressed from human 293 cells (HEK293). It contains AA Ala 20 - Phe 152 (Accession # [P08700-1](#)).

Predicted N-terminus: Ala 20

Molecular Characterization

IL-3(Ala 20 - Phe 152)
P08700-1 Poly-his

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

The protein has a calculated MW of 17.0 kDa. The protein migrates as 25-35 kDa under reducing (R) condition (SDS-PAGE) due to glycosylation.

Endotoxin

Less than 0.3 EU per µg by the LAL method.

Sterility

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

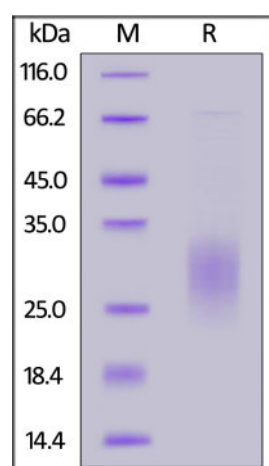
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

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.

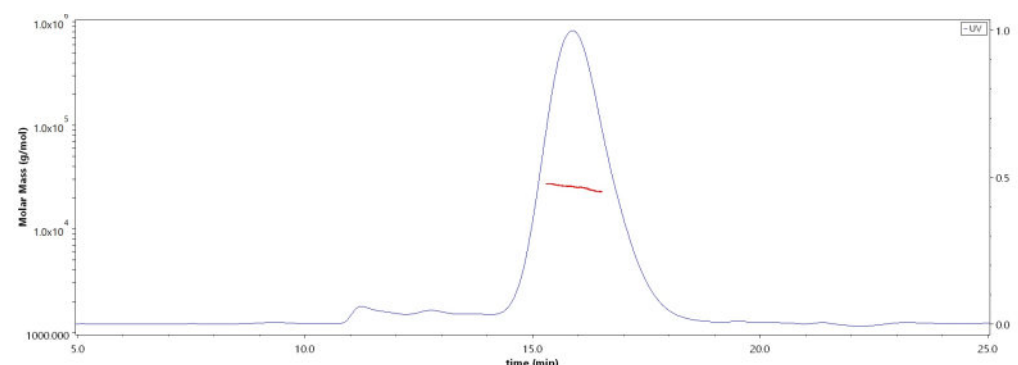
SDS-PAGE



Human IL-3 Protein, 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%.

Bioactivity-ELISA

SEC-MALS



The purity of Human IL-3 Protein, His Tag (Cat. No. IL3-H52H9) is more than 85% and the molecular weight of this protein is around 20-30 kDa verified by SEC-MALS.

[Report](#)

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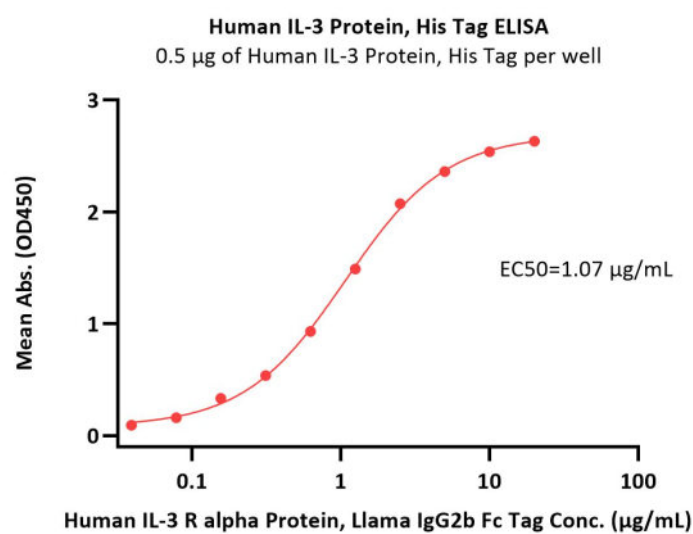


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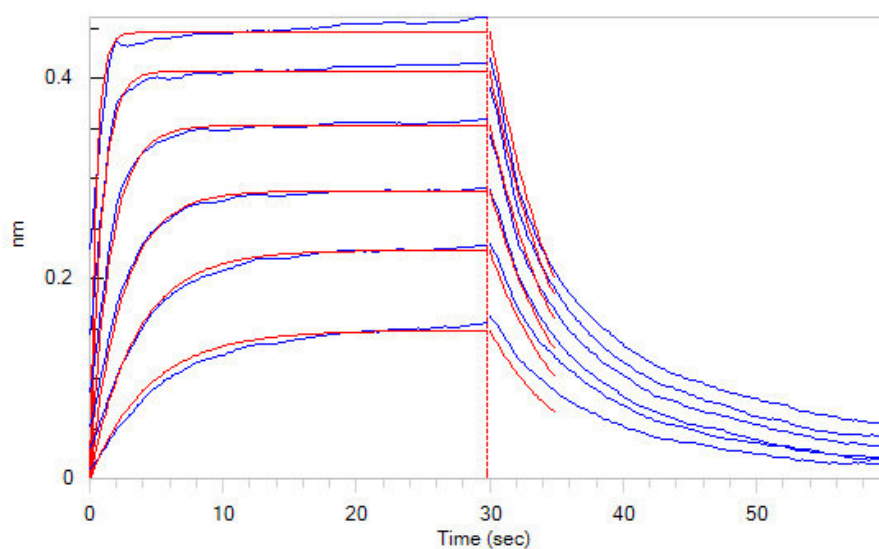


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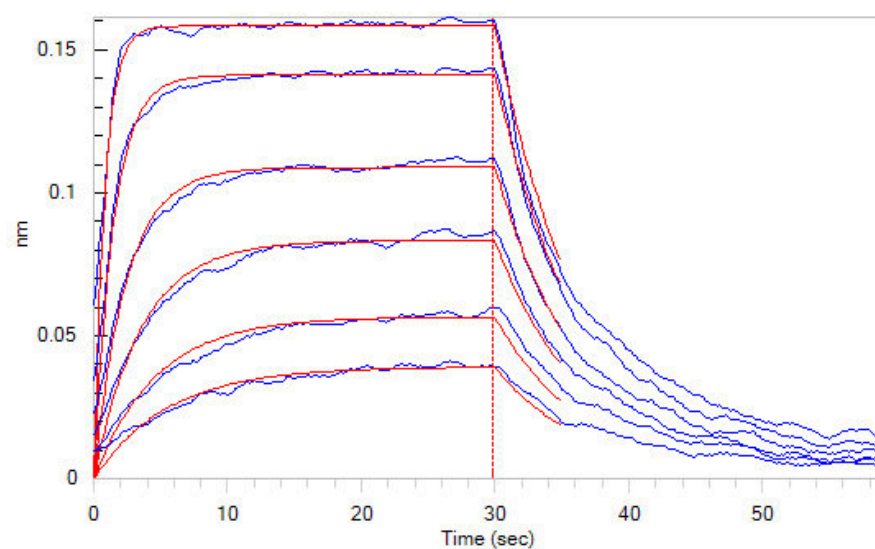


Immobilized Human IL-3 Protein, His Tag (Cat. No. IL3-H52H9) at 5 µg/mL (100 µL/well) can bind Human IL-3 R alpha Protein, Llama IgG2b Fc Tag (Cat. No. ILA-H5255) with a linear range of 0.039-2.5 µg/mL (QC tested).

Bioactivity-BLI



Loaded Human IL-3 R alpha, Fc Tag (Cat. No. ILA-H5252) on Protein A Biosensor, can bind Human IL-3 Protein, His Tag (Cat. No. IL3-H52H9) with an affinity constant of 0.71 µM as determined in BLI assay (ForteBio Octet Red96e) (QC tested).



Loaded Biotinylated Human IL-3 R alpha, Fc, Avitag (Cat. No. ILA-H82F3) on SA Biosensor, can bind Human IL-3 Protein, His Tag (Cat. No. IL3-H52H9) with an affinity constant of 0.35 µM as determined in BLI assay (ForteBio Octet Red96e) (Routinely tested).

Background

Interleukin 3 is also known as IL-3, is a protein that in humans is encoded by the IL3 gene. Interleukin-3 (IL-3) is an interleukin, a type of biological signal (cytokine) that can improve the body's natural response to disease as part of the immune system. It acts by binding to the interleukin-3 receptor. The IL-3 receptor is a heterodimer of the IL-3 specific α -chain and the common β -chain, β_c , which is also used by GM-CSF and IL-5. [3] Binding of IL-3 can also involve substitution of the β_c by a β_{IL-3} -chain that appears to be specific for IL-3. Binding of IL-3 to its cognate receptor(s) induces activation of Jak2, phosphorylation of multiple Stats, and the PI3K/Akt pathway. IL-3 may play an important role in the development of airway inflammation associated with asthma. The human IL-3 gene encodes a protein 152 amino acids long, and the naturally occurring IL-3 is glycosylated. The human IL-3 gene is located on chromosome 5, only 9 kilobases from the GM-CSF gene, and its function is quite similar to GM-CSF.

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