

### Synonym

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

### Source

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

Predicted N-terminus: Ala 20

*Human IL-3 Protein, His Tag, premium grade (IL3-H52H9), designed for preclinical stage, has the same activity and performance with GMP Human IL-3, 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-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

The sterility testing was performed by membrane filtration method.

### 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

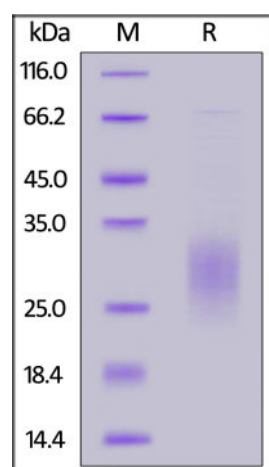
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

*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.

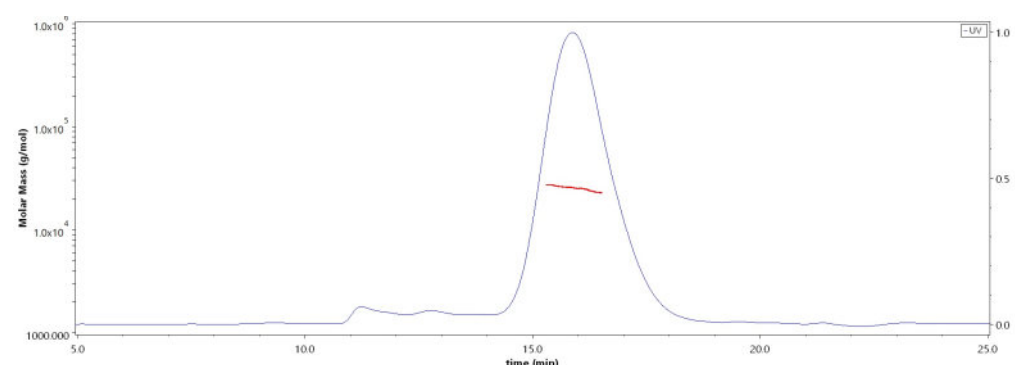
### SDS-PAGE



Human IL-3 Protein, His Tag, 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%.

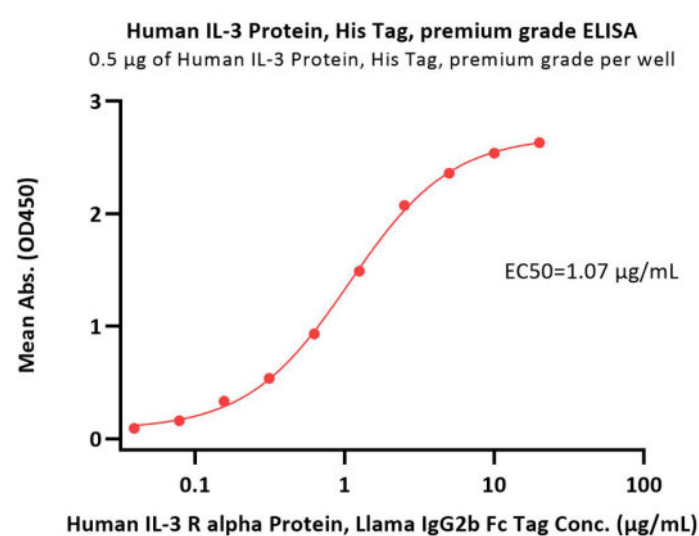
### Bioactivity-ELISA

### SEC-MALS



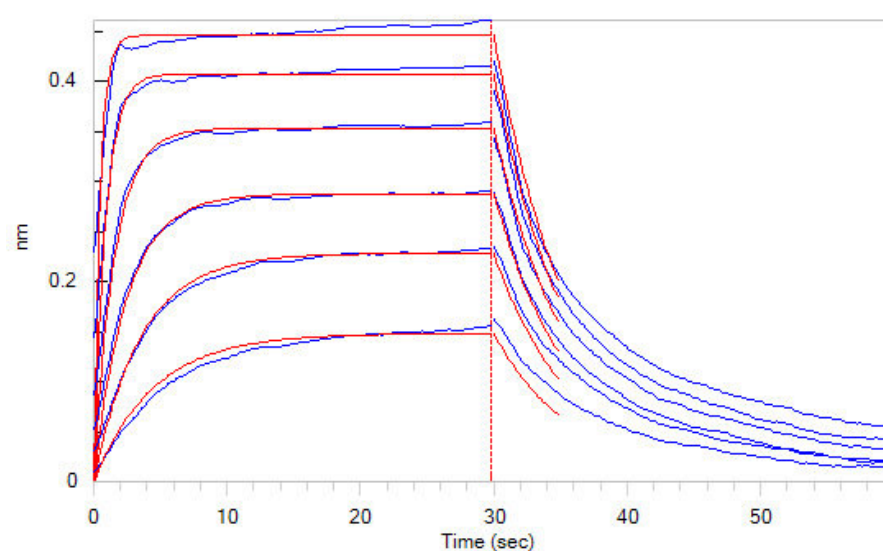
The purity of Human IL-3 Protein, His Tag, premium grade (Cat. No. IL3-H52H9) is more than 85% and the molecular weight of this protein is around 20-30 kDa verified by SEC-MALS.

[Report](#)

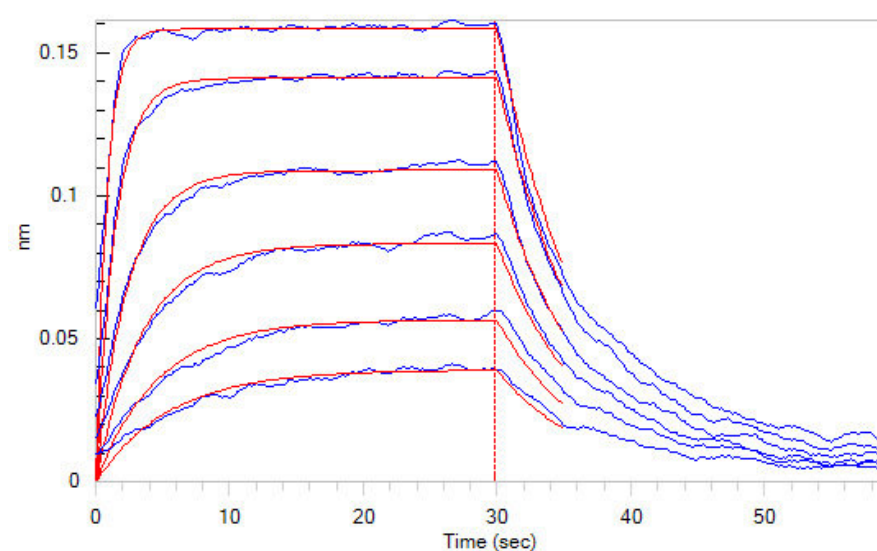


Immobilized Human IL-3 Protein, His Tag, premium grade (Cat. No. IL3-H52H9) at 5 µg/mL (100 µL/well) can bind Human IL-3 R alpha Protein, Llama IgG2b Fc Tag (Cat. No. ILA-H5255) with a linear range of 0.039-2.5 µg/mL (QC tested).

### 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, premium grade (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, premium grade (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 (IL-3) is an interleukin, a type of biological signal (cytokine) which is encoded by the IL-3 gene located on chromosome 5 and produced primarily by activated T cells beside human thymic epithelial cells, activated murine mast cells, murine keratinocytes and neurons/astrocytes. The protein acts in hematopoiesis by controlling the production, differentiation, and function of 2 related white cell populations of the blood, the granulocytes and the monocytes-macrophages. The human IL-3 reported to be a monomer, as it is known, contains 133 amino acids residues which is a single non-glycosylated polypeptide. Specifically, human and murine IL-3 share low homology and it does not show activity on murine cells.

### Clinical and Translational Updates

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