

Human IL-7 Protein, Fc Tag (MALS verified)

Catalog # IL7-H5253



Synonym

IL7,Interleukin-7

Source

Human IL-7, Fc Tag(IL7-H5253) is expressed from human 293 cells (HEK293). It contains AA Asp 26 - His 177 (Accession # [P13232-1](#)). Predicted N-terminus: Asp 26

Molecular Characterization

IL-7(Asp 26 - His 177) P13232-1	Fc(Pro 100 - Lys 330) P01857
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This protein carries a human IgG1 Fc tag at the C-terminus. The protein has a calculated MW of 43.8 kDa. The protein migrates as 55-60 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

>95% 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.*

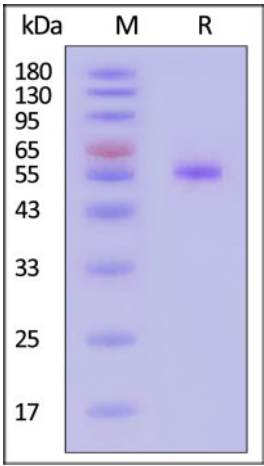
Storage

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

Please avoid repeated freeze-thaw cycles.

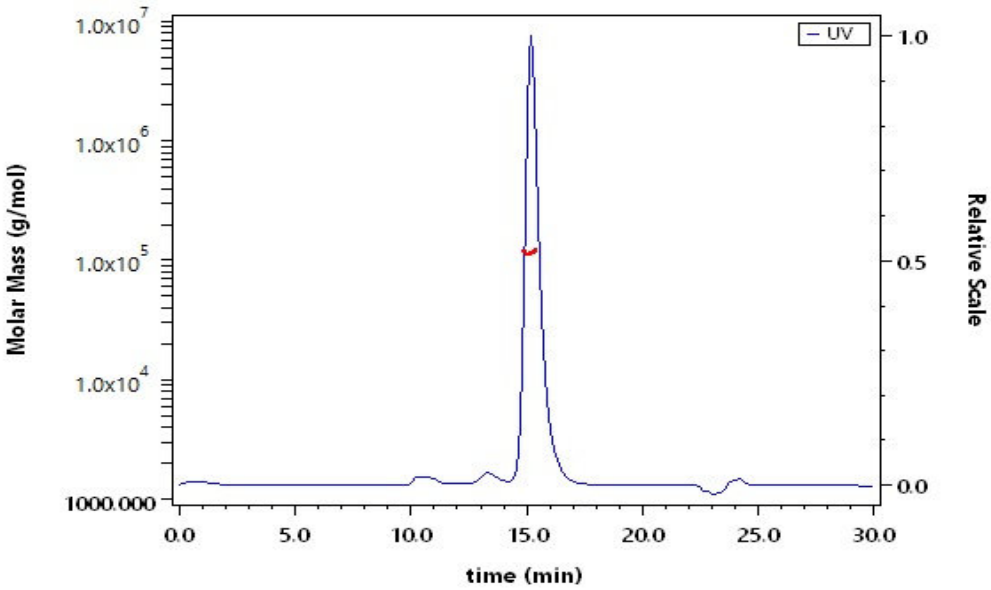
- This product is stable after storage at:
- 20°C to -70°C for 12 months in lyophilized state;
 - 70°C for 3 months under sterile conditions after reconstitution.

SDS-PAGE



Human IL-7, Fc Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95% (With [Star Ribbon Pre-stained Protein Marker](#)).

SEC-MALS



The purity of Human IL-7, Fc Tag (Cat. No. IL7-H5253) is more than 85% and the molecular weight of this protein is around 100-120 kDa verified by SEC-MALS.

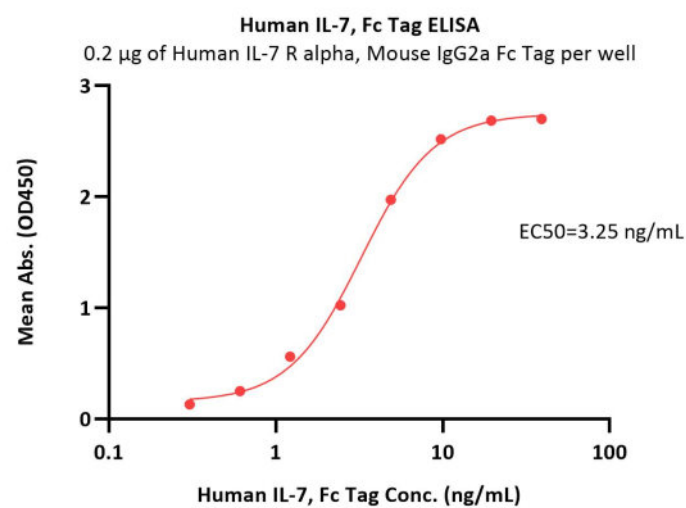
[Report](#)

Bioactivity-ELISA



Human IL-7 Protein, Fc Tag (MALS verified)

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Immobilized Human IL-7 R alpha, Mouse IgG2a Fc Tag (Cat. No. IL7-H5258)
at 2 µg/mL (100 µL/well) can bind Human IL-7, Fc Tag (Cat. No. IL7-H5253)
with a linear range of 0.3-5 ng/mL (QC tested).

Background

Interleukin 7 is also known as IL7, IL-7, and is a hematopoietic growth factor secreted by stromal cells in the red marrow and thymus. It is also produced by keratinocytes, dendritic cells, hepatocytes, neurons, and epithelial cells, but is not produced by lymphocytes. IL-7 stimulates the differentiation of multipotent (pluripotent) hematopoietic stem cells into lymphoid progenitor cells, It also stimulates proliferation of all cells in the lymphoid lineage (B cells, T cells and NK cells). It is important for proliferation during certain stages of B-cell maturation, T and NK cell survival, development and homeostasis. IL-7 is a cytokine important for B and T cell development. This cytokine and the hepatocyte growth factor (HGF) form a heterodimer that functions as a pre-pro-B cell growth-stimulating factor. IL-7 binds to the IL-7 receptor, a heterodimer consisting of Interleukin-7 receptor alpha and common gamma chain receptor. Il-7 promotes hematological malignacies (acute lymphoblastic leukemia, T cell lymphoma). Elevated levels of IL-7 have also been detected in the plasma of HIV-infected patients. IL-7 as an immunotherapy agent has been examined in many pre-clinical animal studies and more recently in human clinical trials for various malignancies and during HIV infection. IL-7 could also be beneficial in improving immune recovery after allogenic stem cell transplant.

