

Synonym

IL-15,Interleukin-15,MGC9721

Source

Human IL-15 Protein, Fc Tag(IL5-H5257) is expressed from human 293 cells (HEK293). It contains AA Asn 49 - Ser 162 (Accession # P40933-1).

Predicted N-terminus: Asn 49

Molecular Characterization

IL-15(Asn 49 - Ser 162) Fc(Pro 100 - Lys 330)
P40933-1 P01857

This protein carries a human IgG1 Fc tag at the C-terminus.

The protein has a calculated MW of 39.2 kDa. The protein migrates as 48-55 kDa when calibrated against <u>Star Ribbon Pre-stained Protein Marker</u> under reducing (R) condition (SDS-PAGE) due to glycosylation.

Endotoxin

Less than 0.01 EU per µg by the LAL method.

Host Cell Protein

 $< 0.5 \text{ ng/}\mu\text{g}$ of protein tested by ELISA.

Host Cell DNA

<0.02 ng/μg of protein tested by qPCR.

Sterility

Negative

Mycoplasma

Negative.

Purity

>95% as determined by SDS-PAGE.

>95% as determined by SEC-MALS.

Formulation

Lyophilized from $0.22~\mu m$ 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

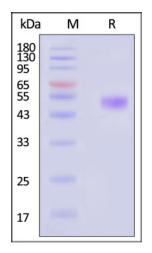
For long term storage, the product should be stored at lyophilized state at -20 $^{\circ}$ C or lower.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

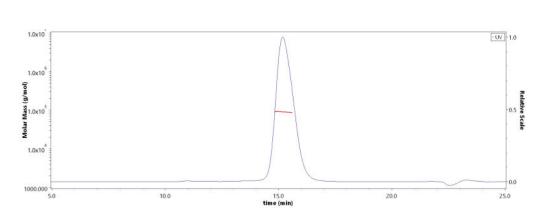
- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

SDS-PAGE



Human IL-15 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 95% (With <u>Star Ribbon Pre-stained Protein Marker</u>).

SEC-MALS



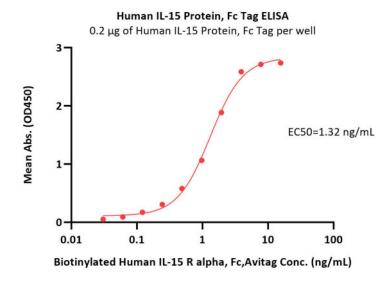
The purity of Human IL-15 Protein, Fc Tag (Cat. No. IL5-H5257) is more than 95% and the molecular weight of this protein is around 80-100 kDa verified by SEC-MALS.

Report





Bioactivity-ELISA



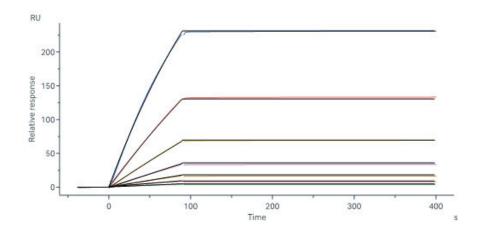
Immobilized Human IL-15 Protein, Fc Tag (Cat. No. IL5-H5257) at 2 μ g/mL (100 μ L/well) can bind Biotinylated Human IL-15 R alpha, Fc,Avitag (Cat. No. ILA-H82F4) with a linear range of 0.1-4 ng/mL (QC tested).

Human IL-15 Protein, Fc Tag ELISA 0.2 μg of Human IL-15 Protein, Fc Tag per well 2 EC50=0.07 μg/mL

Human IL-2RB&IL-2RG Heterodimer Protein, His Tag&Twin-Strep Tag Conc. (μg/mL)

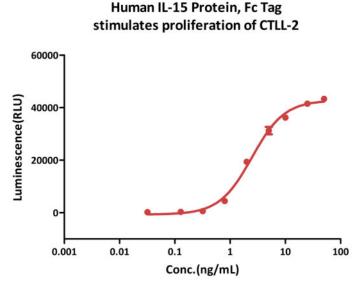
Immobilized Human IL-15 Protein, Fc Tag (Cat. No. IL5-H5257) at 2 μ g/mL (100 μ L/well) can bind Human IL-2RB&IL-2RG Heterodimer Protein, His Tag&Twin-Strep Tag (Cat. No. ILG-H5283) with a linear range of 0.039-0.078 μ g/mL (Routinely tested).

Bioactivity-SPR



Biotinylated Human IL-15 R alpha, Fc,Avitag (Cat. No. ILA-H82F4) immobilized on CM5 Chip can bind Human IL-15 Protein, Fc Tag (Cat. No. IL5-H5257) with an affinity constant of 27.7 pM as determined in a SPR assay (Biacore 8K) (Routinely tested).

Bioactivity-Bioactivity CELL BASE





Human IL-15 Protein, Fc Tag (MALS verified)

Catalog # IL5-H5257



Human IL-15 Protein, Fc Tag (Cat. No. IL5-H5257) stimulates proliferation of CTLL-2 cells. The typically EC50 for this effect is 2.483 ng/mL (QC tested).

Background

Interleukin 15 is also known as IL15, IL-15, and is a cytokine with structural similarity to IL-2. Like IL-2, IL-15 binds to and signals through the IL-2/IL-15 beta chain (CD122) and the common gamma chain (gamma-C, CD132). IL-15 is secreted by mononuclear phagocytes (and some other cells) following infection by virus(es). This cytokine induces cell proliferation of natural killer cells; cells of the innate immune system whose principal role is to kill virally infected cells. Interleukin 15 (IL-15) regulates T and natural killer (NK) cell activation and proliferation. Survival signals that maintain memory T cells in the absence of antigen are provided by IL-15. This cytokine is also implicated in NK cell development. In rodent lymphocytes, IL-15 prevents apoptosis by inducing an apoptosis inhibitor, BCL2L1/BCL-x(L). IL-15 has been shown to enhance the anti-tumor immunity of CD8+ T cells in pre-clinical models. A phase I clinical trial to evaluate the safety, dosing, and anti-tumor efficacy of IL-15 in patients with metastatic melanoma and renal cell carcinoma (kidney cancer) has begun to enroll patients at the National Institutes of Health.

Clinical and Translational Updates

