Catalog # IL5-H5215



Synonym

IL-15, Interleukin-15, MGC9721

Source

Human IL-15, premium grade(IL5-H5215) is expressed from human 293 cells (HEK293). It contains AA Asn 49 - Ser 162 (Accession # <u>P40933-1</u>). Predicted N-terminus: Asn 49

Molecular Characterization

IL-15(Asn 49 - Ser 162) P40933-1

This protein carries no "tag".

The protein has a calculated MW of 12.8 kDa. The protein migrates as 14-16 kDa under reducing (R) condition, and 14 kDa under non-reducing (NR) condition (SDS-PAGE) due to glycosylation.

Endotoxin

Less than 0.01 EU per μ g by the LAL method.

Host Cell Protein

<0.5 ng/µg 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.

>90% as determined by SEC-MALS.

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

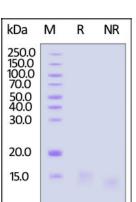
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

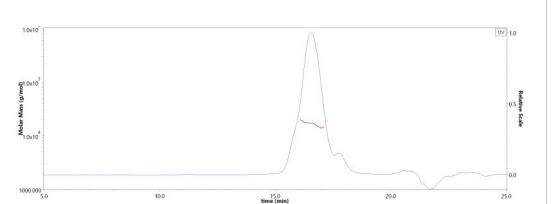
This product is stable after storage at:

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





SEC-MALS





Human IL-15, premium grade on SDS-PAGE under reducing (R) and nonreducing (NR) conditions. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95%.

The purity of Human IL-15, premium grade (Cat. No. IL5-H5215) is more than 90% and the molecular weight of this protein is around 12-20 kDa verified by SEC-MALS. <u>Report</u>





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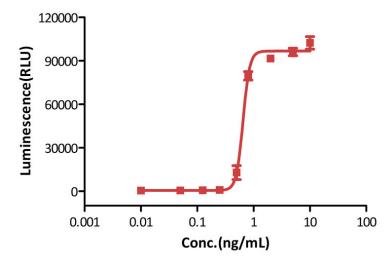
Human IL-15 Protein (HEK293), premium grade

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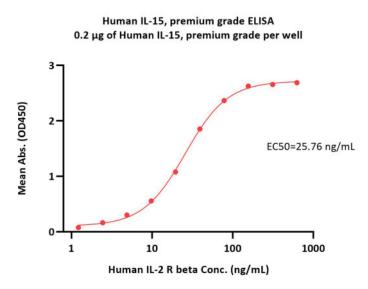
Bioactivity-Bioactivity CELL BASE

Human IL-15, premium grade stimulates proliferation of CTLL-2

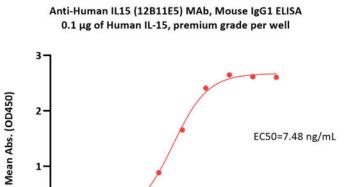


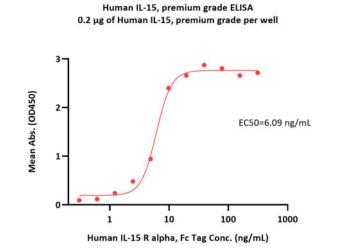
Human IL-15, premium grade (Cat. No. IL5-H5215) stimulates proliferation of CTLL-2 cells. The specific activity of Human IL-15, premium grade is > 0.80×10^7 IU/mg, which is calibrated against human IL-15 WHO International Standard (NIBSC code: 95/554) (QC tested).

Bioactivity-ELISA

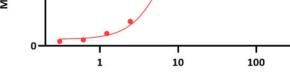


Immobilized Human IL-15, premium grade (Cat. No. IL5-H5215) at 2 μ g/mL (100 μ L/well) can bind Human IL-2 R beta with a linear range of 1.2-39 ng/mL (Routinely tested).





Immobilized Human IL-15, premium grade (Cat. No. IL5-H5215) at 2 μ g/mL (100 μ L/well) can bind Human IL-15 R alpha, Fc Tag (Cat. No. ILA-H5253) with a linear range of 0.3-10 ng/mL (Routinely tested).



Anti-IL-15 Antibody, Human IgG1 Conc. (ng/mL)



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Catalog # IL5-H5215



Immobilized Human IL-15, premium grade (Cat. No. IL5-H5215) at 1 μ g/mL (100 μ L/well) can bind Anti-IL-15 Antibody, Human IgG1 with a linear range of 0.3-10 ng/mL (Routinely 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



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