

Recombinant Human IL15 protein

Cat. No. IL15-321H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human IL15 protein (Asn49-Ser162) carries no tag and was expressed in human 293 cells (HEK293).
Species	Human
Source	HEK293
ProteinLength	114
Description	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.

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Form	Lyophilized from 0.22 um filtered solution in PBS, pH7.4, 10% trehalose.
Molecular Mass	The protein has a calculated MW of 12.8 kDa. The protein migrates as 13 kDa under reducing (R) condition (SDS-PAGE).
Endotoxin	Less than 0.1 EU per ug by the LAL method.
Purity	>95% as determined by SDS-PAGE.
Storage	For long term storage, the product should be stored at lyophilized state at -20 centigrade or lower. Please avoid repeated freeze-thaw cycles. This product is stable after storage at: -20 centigrade to -70 centigrade for 12 months in lyophilized state; -70 centigrade for 3 months under sterile conditions after reconstitution.
Reconstitution	It is recommended that sterile water be added to the vial to prepare a stock solution of 0.2 ug/ul. Centrifuge the vial at 4°C before opening to recover the entire contents.

GENE INFORMATION

Gene Name	IL15
Official Symbol	IL15
Synonyms	IL15; interleukin 15; interleukin-15; IL 15; MGC9721; IL-15
Gene ID	3600
mRNA Refseq	NM_000585

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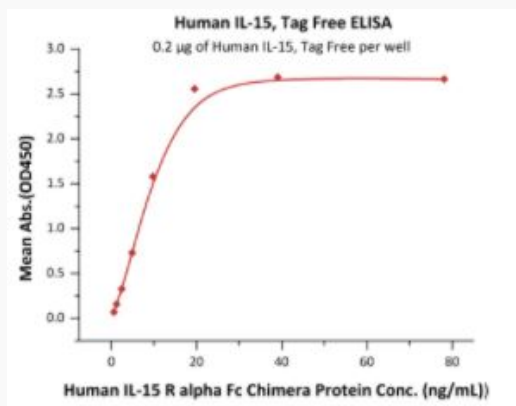
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Protein Refseq NP_000576

MIM 600554

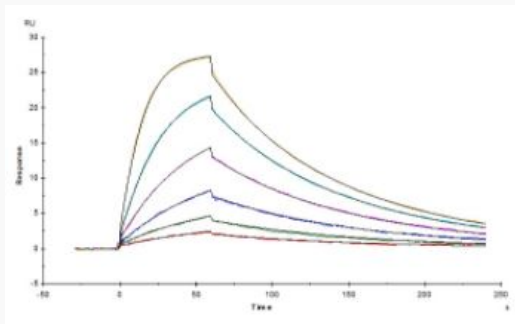
UniProt ID P40933

Bioactivity-ELISA of IL15-321H



Immobilized Human IL-15, Tag Free at 2 µg/mL (100 µL/well) can bind Human IL-15 R alpha Fc Chimera Protein with a linear range of 0.6-20 ng/mL (QC tested).

Bioactivity-SPR of IL15-321H



Human IL-2R beta, Fc Tag captured on CM5 chip via anti-human IgG Fc antibody, can bind Human IL-15, Tag Free with an affinity constant of 9.5 nM as determined in

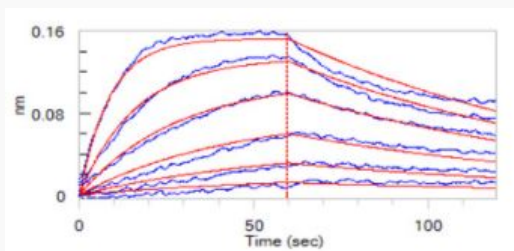
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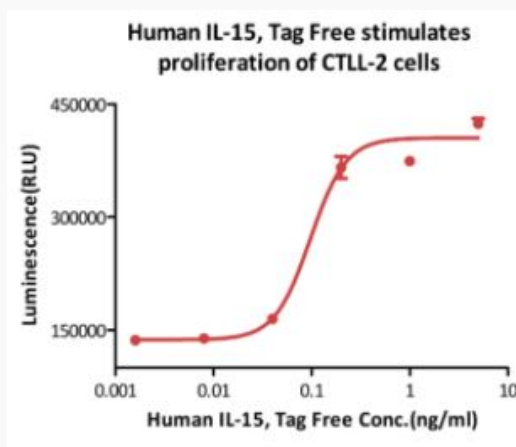
a SPR assay (QC tested).

Bioactivity-BLI of IL15-321H



Loaded Human IL-2 R beta, Fc Tag on Protein A Biosensor, can bind Human IL-15, Tag Free with an affinity constant of 10.2 nM as determined in BLI assay (Routinely tested).

Bioactivity-Cell based assay of IL15- 321H



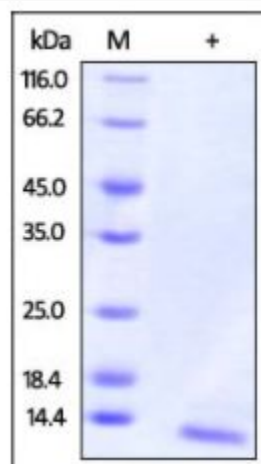
Human IL-15, Tag Free stimulates proliferation of CTLL-2 cells. The ED50 for this effect is 0.097-0.19 ng/ml (Routinely tested).

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**SDS-PAGE of IL15-
321H**



Human IL15, Tag Free on SDS-PAGE under reducing (R) condition. The gel was stained overnight with Coomassie Blue. The purity of the protein is greater than 95%.