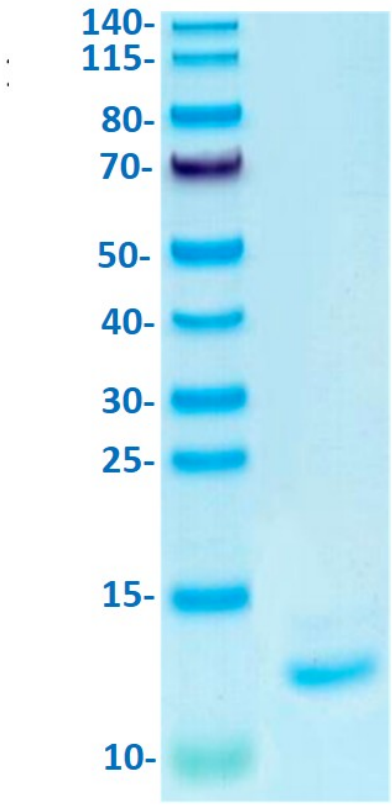
Bioactive

IL15 (Human) Recombinant Protein

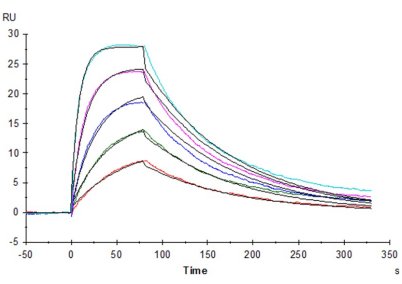
Catalog # P10685 Size 100 ug

Applications



SDS-PAGE

Human IL15 on Bis-Tris PAGE under reduced condition. The purity is greater than 95%.



Surface Plasmon Resonance

Human IL2 R beta, His Tag captured on CM5 Chip via Anti-His Antibody can bind Human IL15, No Tag with an affinity constant of 5.9 nM as determined in SPR assay (Biacore T200).

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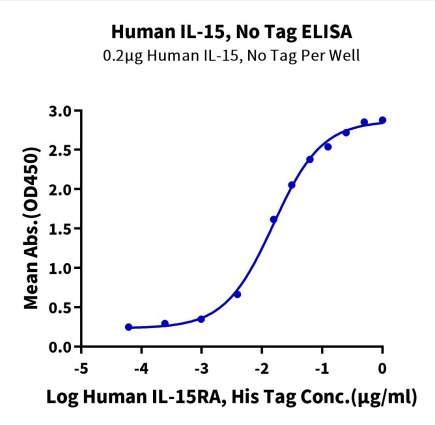
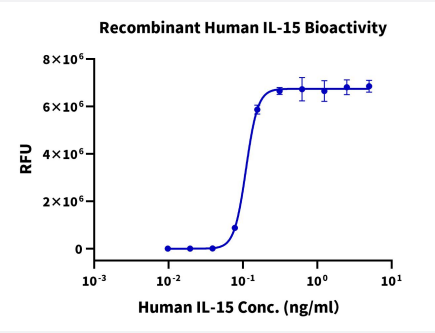


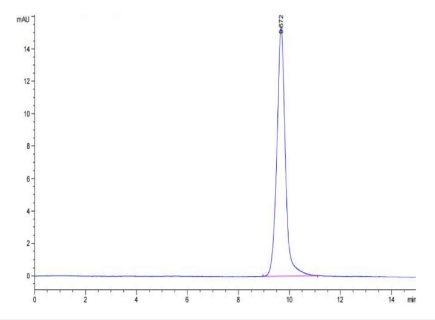
ELISA

Immobilized Human IL15, No Tag at 2 ug/mL (100 uL/well) on the plate. Dose response curve for Human IL15RA, His Tag with the EC_{50} of 15.4 ng/mL determined by ELISA.



ELISA

Measured in a cell proliferation assay using CTLL-2 cells. The ED_{50} for this effect is 0.1-0.3 ng/mL. The specific activity of recombinant human IL15 is >1 × 10^7 IU/mg, which is calibrated against the human IL15 reference standard (NIBSC code: 95/554).



HPLC

The purity of Human IL15 is greater than 95% as determined by SEC-HPLC.

Specification

Product Description	Human IL15 (P40933, Asn49-Ser162) partial recombinant protein expressed in *Escherichia coli*.
Sequence	Asn49-Ser162
Host	Escherichia coli
Theoretical MW (kDa)	12.8
Reactivity	Mouse
Form	Lyophilized
Preparation Method	*Escherichia coli* expression system

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Purity	> 95% by Tris-Bis PAGE > 95% by HPLC
Endotoxin Level	< 0.05 EU per 1 ug as determined by the LAL method.
Activity	The EC_{50} was 15.4 ng/mL determined by ELISA. The affinity constant was 5.9 nM, determined by SPR assay.
Recommend Usage	Biological Activity ELISA SPR Tris-Bis PAGE SEC-HPLC The optimal working dilution should be determined by the end user.
Storage Buffer	Lyophilized from 0.22 um filtered solution in 20 mM Tris, 150 mM NACI (pH 7.5). Normally 8% mannit ol is added as protectant before lyophilization.
Storage Instruction	Store at -20°C for 12 months. After reconstitution, store at -80°C for 3 months. Aliquot to avoid repeated freezing and thawing.

Applications

- Functional Study
- Enzyme-linked Immunoabsorbent Assay
- SDS-PAGE

  Human IL15 on Bis-Tris PAGE under reduced condition. The purity is greater than 95%.
- Surface Plasmon Resonance

  Human IL2 R beta, His Tag captured on CM5 Chip via Anti-His Antibody can bind Human IL15, No Tag with an affinity constant of 5.9 nM as determined in SPR assay (Biacore T200).

Gene Info — IL15

Entrez GeneID	3600
Protein Accession#	P40933
Gene Name	IL15
Gene Alias	IL-15, MGC9721

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Gene Description	interleukin 15
Omim ID	600554
Gene Ontology	Hyperlink
Gene Summary	The protein encoded by this gene is a cytokine that regulates T and natural killer cell activation and proliferation. This cytokine and interleukine 2 share many biological activities. They are found to bind common hematopoietin receptor subunits, and may compete for the same receptor, and thus negatively regulate each other's activity. The number of CD8+ memory cells is shown to be controlled by a balance between this cytokine and IL2. This cytokine induces the activation of JAK kinases, as well as the phosphorylation and activation of transcription activators STAT3, STAT5, and STAT6. Studies of the mouse counterpart suggested that this cytokine may increase the expression of apoptosis inhibitor BCL2L1/BCL-x(L), possibly through the transcription activation activity of STAT6, and thus prevent apoptosis. Two alternatively spliced transcript variants of this gene encoding the same protein have been reported. [provided by RefSeq
Other Designations	OTTHUMP00000164617

Pathway

- Cytokine-cytokine receptor interaction
- Jak-STAT signaling pathway

Disease

- Adenocarcinoma
- Arthritis
- Asthma
- Bronchial Hyperreactivity
- Bronchiolitis
- Carcinoma
- Cardiovascular Diseases
- Celiac Disease
- Connective Tissue Diseases

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- Coronary Disease
- Diabetes Mellitus
- Edema
- Esophageal Neoplasms
- Fetal Diseases
- Fractures
- Genetic Predisposition to Disease
- Hematologic Diseases
- Hodgkin Disease
- Hypersensitivity
- Hypertrophy
- Infant
- Infection
- Inflammation
- Kidney Failure
- Lung Neoplasms
- Lymphoma
- Lymphoproliferative Disorders
- Metabolic Syndrome X
- Multiple Myeloma
- Musculoskeletal Diseases
- Neoplasm
- Obesity
- Occupational Diseases
- Osteoporosis
- Pregnancy Complications

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- Premature Birth
- Psoriasis
- Pulmonary Disease
- Recurrence
- Respiratory Syncytial Virus Infections
- Skin Diseases
- Urinary Bladder Neoplasms
- Waldenstrom Macroglobulinemia
- Werner syndrome

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