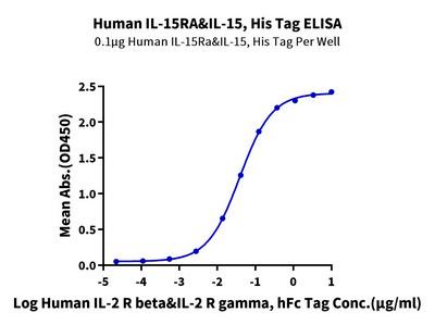
Bioactive CellTx™ HuPro®

IL15RA/IL15 (Human) Recombinant Protein

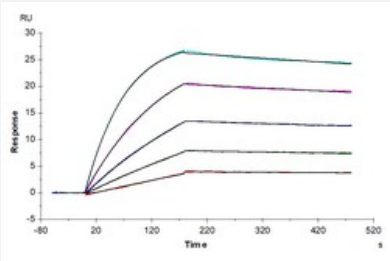
Catalog # P9790 Size 100 ug

Applications



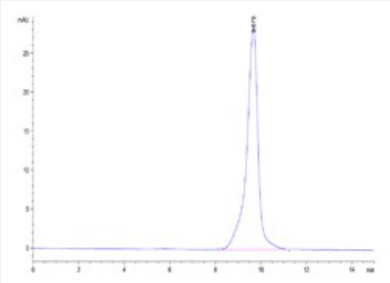
Enzyme-linked Immunoabsorbent Assay

Immobilized Human IL-15RA & IL-15, His Tag at 1 ug/mL (100 uL/well) on the plate. Dose response curve for Human IL-2 R beta & IL-2 R gamma, hFc Tag with the EC50 of 38.8 ng/mL determined by ELISA (QC Test).



Surface Plasmon Resonance

Human IL-2 R beta & IL-2 R gamma, hFc Tag captured on CM5 Chip via Protein A can bind Human IL-15Ra & IL-15, His Tag with an affinity constant of 0.084 nM as determined in SPR assay (Biacore T200).



SEC-HPLC

The purity of Human IL-15RA&IL-15 is greater than 95% as determined by SEC-HPLC.

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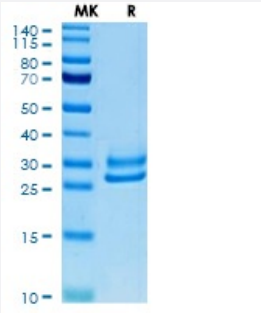

Tris-Bis PAGE

Human IL-15RA&IL-15 on Tris-Bis PAGE under reduced condition. The purity is greater than 95%.

Specification

Product Description	Human IL15RA | IL15 (Q13261-1 | P40933-1, Thr27-Pro185) partial recombinant protein with His tag at C-Terminus expressed in HEK294 cells.
Sequence	Ile31-Ser108 | Asn49-Ser162
Host	Human
Theoretical MW (kDa)	23.8
Form	Lyophilized
Preparation Method	Mammalian cell (HEK293) expression system
Quality Control Testing	SEC-HPLC and Tris-Bis PAGE SEC-HPLC The purity of Human IL-15RA&IL-15 is greater than 95% as determined by SEC-HPLC. Tris-Bis PAGE Human IL-15RA&IL-15 on Tris-Bis PAGE under reduced condition. The purity is greater than 95%.
Recommend Usage	Biological Activity ELISA SPR SDS-PAGE The optimal working dilution should be determined by the end user.
Storage Buffer	Lyophilized from sterile distilled Water is > 100 ug/mL
Storage Instruction	Store at 2°C to 8°C for 1 week. For long term storage, aliquot and store at -20°C to -80°C. Aliquot to avoid repeated freezing and thawing.
Note	Result of bioactivity analysis

Applications

- Functional Study

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- Enzyme-linked Immunoabsorbent Assay

  Immobilized Human IL-15RA & IL-15, His Tag at 1 ug/mL (100 uL/well) on the plate. Dose response curve for Human IL-2 R beta & IL-2 R gamma, hFc Tag with the EC50 of 38.8 ng/mL determined by ELISA (QC Test).

- SDS-PAGE

- Surface Plasmon Resonance

  Human IL-2 R beta & IL-2 R gamma, hFc Tag captured on CM5 Chip via Protein A can bind Human IL-15Ra & IL-15, His Tag with an affinity constant of 0.084 nM as determined in SPR assay (Biacore T200).

Gene Info — IL15

Entrez GeneID	3600
Protein Accession#	Q13261-1(IL-15RA) | P40933-1(IL-15)
Gene Name	IL15
Gene Alias	IL-15, MGC9721
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

Gene Info — IL15RA

Entrez GeneID	3601
Protein Accession#	Q13261-1(IL-15RA) | P40933-1(IL-15)

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Gene Name	IL15RA
Gene Alias	MGC104179
Gene Description	interleukin 15 receptor, alpha
Omim ID	601070
Gene Ontology	Hyperlink
Gene Summary	The protein encoded by this gene is a cytokine receptor that specifically binds IL15 with high affinity. The receptors of IL15 and IL2 share two subunits, the IL2R beta and IL2R gamma chains. This forms the basis of many overlapping biological activities of IL15 and IL2. The IL2 receptor requires an additional IL2-specific alpha subunit for high affinity IL2 binding. This protein is structurally related to IL2R alpha, but is capable of binding IL15 with high affinity independent of other subunits, which suggests the distinct roles between IL15 and IL2. This receptor is reported to enhance cell proliferation and expression of apoptosis inhibitor BCL2L1/BCL2-XL and BCL2. Multiple alternatively spliced transcript variants of this gene have been reported. The full length sequences of only two variants encoding distinct isoforms are available. [provided by RefSeq
Other Designations	OTTHUMP00000019021|OTTHUMP00000019022

Pathway

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

Disease

- Adenocarcinoma
- Adenocarcinoma
- Alzheimer Disease
- Arthritis
- Asthma
- Asthma
- Bronchial Hyperreactivity

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- Bronchiolitis
- Bronchiolitis
- Carcinoma
- Carcinoma
- Cardiovascular Diseases
- Celiac Disease
- Celiac Disease
- Connective Tissue Diseases
- Coronary Disease
- Diabetes Mellitus
- Edema
- Esophageal Neoplasms
- Esophageal Neoplasms
- Fetal Diseases
- Fractures
- Genetic Predisposition to Disease
- Genetic Predisposition to Disease
- Hematologic Diseases
- Hodgkin Disease
- Hyperparathyroidism
- Hypersensitivity
- Hypertrophy
- Infant
- Infant
- Infection

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- Inflammation
- Kidney Failure
- Kidney Failure
- Lung Neoplasms
- Lung Neoplasms
- Lymphoma
- Lymphoma
- Lymphoproliferative Disorders
- Metabolic Syndrome X
- Metabolic Syndrome X
- Multiple Myeloma
- Musculoskeletal Diseases
- Neoplasm
- Obesity
- Obesity
- Occupational Diseases
- Osteoporosis
- Pregnancy Complications
- Premature Birth
- Psoriasis
- Pulmonary Disease
- Pulmonary Disease
- Recurrence
- Respiratory Syncytial Virus Infections
- Respiratory Syncytial Virus Infections
- Skin Diseases

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- Syndrome
- Urinary Bladder Neoplasms
- Urinary Bladder Neoplasms
- Waldenstrom Macroglobulinemia
- Werner syndrome
- Werner syndrome

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