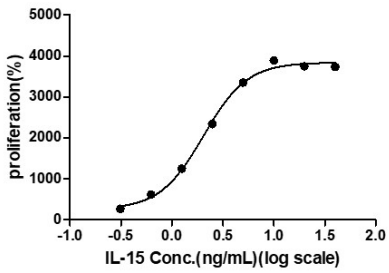
Bioactive | CellTx™ | GMP Grade

IL15 (Human) Recombinant Protein

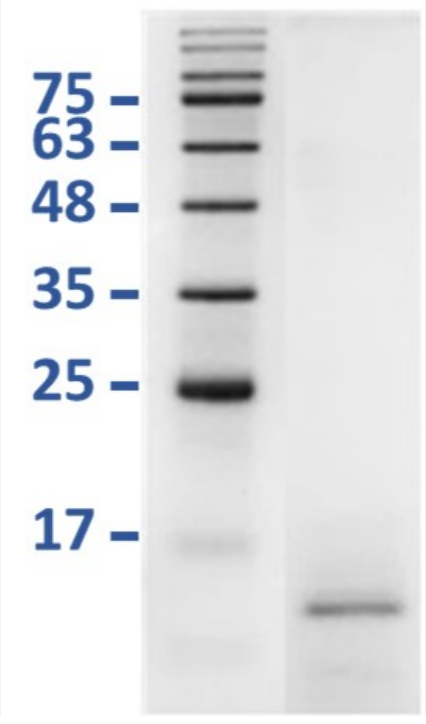
Catalog # P6999 Size 100 ug

Applications



Functional Study

The ED_{50} for this effect is < 3 ng/mL, measured by the induction of MO7e human megakaryocytic leukemic proliferation.



Specification

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Product Description	Human IL15 recombinant protein with polyhistidine tag at the N-terminus expressed in *Escherichia coli*.
Host	Escherichia coli
Theoretical MW (kDa)	Calculated MW: 13.7
Form	Lyophilized
Preparation Method	*Escherichia coli* expression system
Purification	Ni-NTA chromatography
Purity	> 97% by SDS-PAGE
Endotoxin Level	< 0.05 EU/ug
Activity	The ED_{50} for this effect is < 3 ng/mL, measured by the induction of proliferation in CTLL-2 cells. The specific activity of recombinant human IL-15 is > 2 x 10^6 IU/mg, which is calibrated against the human IL-15 WHO International Standard (NIBSC code: 95/554).
Quality Control Testing	SDS-PAGE Stained with Coomassie Blue
Recommend Usage	SDS-PAGE The optimal working dilution should be determined by the end user.
Regulatory Status	GMP grade
Storage Buffer	Lyophilized from NaPi buffer, 0.018% SDS, pH 7.5. Reconstitute the lyophilized protein in sterile H_2O to a concentration of at least 0.5 mg/mL and incubate the stock solution for at least 20 min to ensure sufficient redissolution. Please use the protein within one month after reconstitution.
Storage Instruction	Store at -20°C for 12 months in lyophilized state. After reconstitution with deionized water, store at -20 or -80°C for 1 month. Aliquot to avoid repeated freezing and thawing.

Applications

- Functional Study

  The ED_{50} for this effect is < 3 ng/mL, measured by the induction of MO7e human megakaryocytic leukemic proliferation.

- SDS-PAGE

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Gene Info — IL15

Entrez GeneID	3600
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

Pathway

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

Disease

- Adenocarcinoma
- Arthritis
- Asthma
- Bronchial Hyperreactivity
- Bronchiolitis

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- Carcinoma
- Cardiovascular Diseases
- Celiac Disease
- Connective Tissue Diseases
- 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

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- Neoplasm
- Obesity
- Occupational Diseases
- Osteoporosis
- Pregnancy Complications
- Premature Birth
- Psoriasis
- Pulmonary Disease
- Recurrence
- Respiratory Syncytial Virus Infections
- Skin Diseases
- Urinary Bladder Neoplasms
- Waldenstrom Macroglobulinemia
- Werner syndrome

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