

Bioactive

GMP Grade

## IL15 (Human) Recombinant Protein

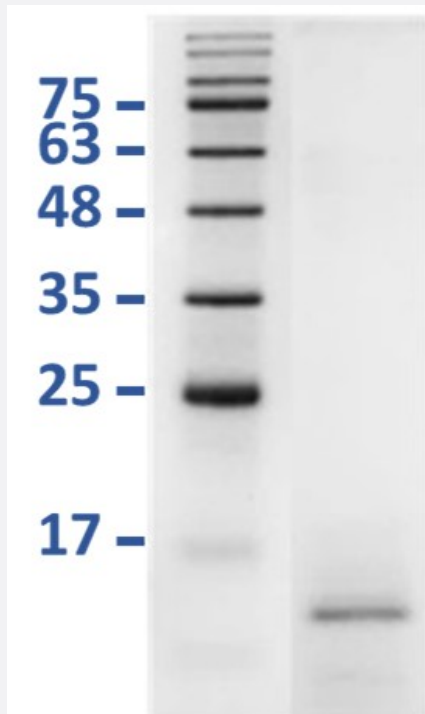
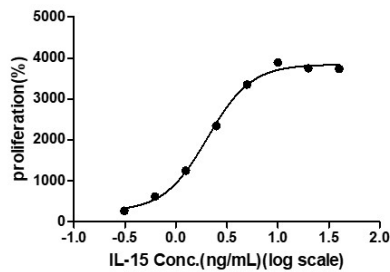
Catalog # P6999

Size 100 ug

### Applications

#### Functional Study

The ED<sub>50</sub> for this effect is 0.5-3 ng/mL, measured by the induction of MO7e human megakaryocytic leukemic proliferation.



### Specification

|                         |                                                                                                                                                                                                                                                                                                                      |
|-------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Product Description     | Human IL15 recombinant protein with polyhistidine tag at the N-terminus expressed in <i>Escherichia coli</i> .                                                                                                                                                                                                       |
| Host                    | Escherichia coli                                                                                                                                                                                                                                                                                                     |
| Theoretical MW (kDa)    | Calculated MW: 13.7                                                                                                                                                                                                                                                                                                  |
| Form                    | Lyophilized                                                                                                                                                                                                                                                                                                          |
| Preparation Method      | <i>Escherichia coli</i> expression system                                                                                                                                                                                                                                                                            |
| Purification            | Ni-NTA chromatography                                                                                                                                                                                                                                                                                                |
| Purity                  | > 97% by SDS-PAGE                                                                                                                                                                                                                                                                                                    |
| Endotoxin Level         | < 0.05 EU/ug                                                                                                                                                                                                                                                                                                         |
| Activity                | The ED <sub>50</sub> 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 <sup>6</sup> 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<br>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.<br>Reconstitute the lyophilized protein in sterile H <sub>2</sub> O 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.<br>After reconstitution with deionized water, store at -20 or -80°C for 1 month.<br>Aliquot to avoid repeated freezing and thawing.                                                                                                                               |

## Applications

- Functional Study

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- SDS-PAGE

## 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](#)

- [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](#)

- [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](#)