Bioactive

# IL15 (Human) Recombinant Protein

Catalog # P7502 Size 10 ug

## Applications

### Result of bioactivity analysis

Result of bioactivity analysis

## Specification

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|---|---|
| **Product Description** | Human IL15 (P40933, 49 a.a. - 162 a.a.) partial recombinant protein expressed in *Escherichia coli*. |
| **Sequence** | NWVNVISDLKKIEDLIQSMHIDATLYTESDVHPSCKVTAMKCFLLELQVISLESGDASIHDTVENLIIL ANNSLSSNGNVTESGCKECEELEEKNIKEFLQSFVHIVQMFINTS |
| **Host** | Escherichia coli |
| **Theoretical MW (kDa)** | 12.8 |
| **Form** | Lyophilized |
| **Preparation Method** | *Escherichia coli* expression system |
| **Purity** | > 95% by SDS-PAGE |
| **Endotoxin Level** | < 0.2 EU per 1 ug of protein (determined by gel clotting method) |
| **Activity** | The $ED_{50}$ was determined by the dose-dependent stimulation of the proliferation of CTLL-2 cells is < 5.0 ng/mL, corresponding to a specific activity of > $2.0 \times 10^6$ units/mg. |
| **Storage Buffer** | Lyophilized from sterile distilled Water up to 100 ug/mL |
| **Storage Instruction** | Store at 4°C to 8°C for 1 week. For long term storage store at -20°C to -80°C.<br>Aliquot to avoid repeated freezing and thawing. |

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|---|---|
| **Note** | Result of bioactivity analysis<br>Result of bioactivity analysis |

## Applications

- Functional Study
- SDS-PAGE

## Gene Info — IL15

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|---|---|
| **Entrez GeneID** | 3600 |
| **Protein Accession#** | P40933 |
| **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

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## 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

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- 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

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