

# Recombinant Human Interleukin-15 (rh IL-15)

**Synonyms:** MGC9721

**Introduction:** IL-15 regulates T and natural killer cell activation and proliferation. IL-15 and IL-2 share many biological activities. They are found to bind common hematopoietin receptor subunits, 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 IL-15 and IL-2. IL-15 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 IL-15 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.

**Description:** Recombinant human IL-15 produced in *E.Coli* is a single, non-glycosylated polypeptide chain containing 114 amino acids and having a molecular mass of 13007 Dalton. rh IL-15 is purified by proprietary chromatographic techniques.

**Source:** *Escherichia Coli*.

**Physical Appearance:** Sterile filtered white lyophilized (freeze-dried) powder.

**Formulation:** lyophilized from a 0.22 µm filtered solution in 25 mM sodium acetate, 300 mM NaCl, pH 7.5. The aliquots of 1µg and 2µg contain Trehalose 5% (w/vol) for better recovery

**Solubility:** It is recommended to reconstitute the lyophilized rh IL-15 in sterile H<sub>2</sub>O not less than 100 µg/ml, which can then be further diluted to other aqueous solutions.

**Stability:** Lyophilized rh IL-15 although stable at room temperature for 3 weeks, should be stored desiccated below -18° C . Upon reconstitution rh IL-15 should be stored at 4° C between 2-7 days and for future use below -18° C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.

**Purity:** 95.0% as determined by SDS-PAGE Silver Stained gel.

**Endotoxicity:** The endotoxin level is less than 0.1 ng per µg (1EU/µg) determined by LAL method

**Amino acid sequence:** MNWVNVISDL KKIEDLIQSM HIDATLYTES DVHPSCKVTA MKCFLLELQV  
ISLESGDASI HDTVENLIL ANNSLSSNGN VTESGCKECE ELEEKNIKEF LQSFVHIVQM FINTS

**Biological Activity:** Tested by its capability to promote proliferation of murine lymphoblast cell line CTLL-2 rh IL-15 has a biological activity of  $\geq 8 \times 10^6$  IU/mg

This material is offered for **research use only**. Not for use in human. For in vitro use only. ImmunoTools will not be held responsible for patent infringement or other violations that may occur with the use of our products.

<i>small</i>	2 µg	Cat.N°	11340152
<i>medium</i>	10 µg	Cat.N°	11340153
<i>large</i>	50 µg	Cat.N°	11340155
<i>x-large</i>	250 µg	Cat.N°	11340157

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