

# rHuIL-15

## Recombinant Human Interleukin-15

Product	Cat#	Package size
Recombinant Human Interleukin-15	C6030.0002	2µg
Recombinant Human Interleukin-15	C6030.0010	10µg
Recombinant Human Interleukin-15	C6030.1000	1mg

**Synonyms:** IL-15, MGC9721

### Product description

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.

Recombinant human Interleukin-15 produced in *E.Coli* is a single, non-glycosylated polypeptide of 114 amino acids and a molecular mass of 12.9 Dalton.

**Source:** *Escherichia coli*

### Biological activity

The ED<sub>50</sub> as determined by the dose-dependent stimulation of the proliferation of mouse CTLL-2 was found to be <0.5ng/mL, corresponding to a Specific Activity of 2 x 10<sup>6</sup> IU/mg.

**Purity:** Greater than 97% by SDS-PAGE and HPLC analysis.

### Amino acid sequence

MNWNVISDL KKIEDLIQSM HIDATLYTES DVHPSCKVTA MKCFLELQV ISLESGDASI HDTVENLIL ANNSLSSNGN VTEGCKECE ELEEKNIKEF LQSFVHIVQM FINTS.

### Formulation

The protein was lyophilized from PBS pH7.4.

### Stability

Lyophilized recombinant Human IL-15 although stable at room temperature for 3 weeks, should be stored desiccated below -20° C. Upon reconstitution of recombinant Human IL-15 should be stored at +2° C to +8° C between 2-7 days and for future use below -20° C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA).

**Please avoid freeze-thaw cycles.**

### Reconstitution

It is recommended to reconstitute the lyophilized recombinant Human IL-15 in sterile deionised water not less than 100µg/mL, which can then be further diluted to other aqueous solutions.

### Protein Content

Protein quantitation was carried out by two independent methods:

1. UV spectroscopy at 280 nm using the absorbency value of 0.55 as the extinction coefficient for a 0.1% (1mg/mL) solution.
2. Analysis by RP-HPLC, using a standard solution of IL-15 as a Reference Standard.

### Usage

This product is for research/laboratory usage only. It may not be used as drug, agricultural or pesticidal product, food additive or household chemical.