

Recombinant Rat Interleukin-15 (rr 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 rat IL-15 produced in *E. Coli* is a single, non-glycosylated polypeptide chain containing 115 amino acids and having a molecular mass of 13533 Dalton. rr IL-15 is purified by proprietary chromatographic techniques.

Source: *Escherichia Coli*.

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

Formulation: The protein was lyophilized from 10mM Tris, pH 8.5. The aliquotes of 1µg and 2 µg contain Trehalose 5% (w/vol) for better recovery

Solubility: It is recommended to reconstitute the lyophilized rr IL-15 in sterile H₂O not less than 100 µg/ml, which can then be further diluted to other aqueous solutions.

Stability: Lyophilized rr IL-15 although stable at room temperature for 3 weeks, should be stored desiccated below -18° C. Upon reconstitution rr 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: Greater than 98.0% as determined by RP-HPLC and by SDS-PAGE.

Amino acid sequence: The sequence of the first five N-terminal amino acids was determined and was found to be Met-Asn-Trp-Ile-Asp.

Biological Activity: rr IL-15 is fully biologically active when compared to standard. The ED₅₀ as determined by the dose-dependant stimulation of the proliferation of CTLL-2 was found to be < 10 ng/ml, corresponding to a Specific Activity of 1 x 10⁵ IU/mg.

This material is offered for **research 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°	13340152
<i>medium</i>	10 µg	Cat.N°	13340153
<i>large</i>	50 µg	Cat.N°	13340155

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