

Recombinant Mouse Interleukin-15 (rm IL-15)

Synonyms: MGC9721

Introduction: 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.

Description: Recombinant mouse IL-15 produced in *E.Coli* is a single, non-glycosylated polypeptide chain containing 115 amino acids and having a molecular mass of 13.4 kDa.
rm 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 a concentrated (1 mg/ml) solution with 10 mM Na₃PO₄, pH 7.5.

Solubility: It is recommended to reconstitute the lyophilized rm IL-15 in sterile 18MΩ-cm H₂O not less than 100 µg/ml, which can then be further diluted to other aqueous solutions.

Stability: Lyophilized rm IL-15 although stable at room temperature for 3 weeks, should be stored desiccated below -18° C . Upon reconstitution it 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 90.0% as determined by SDS-PAGE.

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

Amino acid sequence: MNWIDVRYDL EKIESLIQSI HIDTTLYTDS DFHPSCKVTA MNCFLLELQV
ILHEYSNMTL NETVRNVLYL ANSTLSSNKN VAESGCKECE ELEEKTFTEF LQSFIRIVQM FINTS

Biological Activity: The ED₅₀ as determined by the dose-dependant stimulation of the proliferation of CTLL-2 cells was found to be 15.8 ng/ml, corresponding to a specific activity of 6.3 x 10⁴ U/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°	12340152
<i>medium</i>	10 µg	Cat.N°	12340153
<i>large</i>	50 µg	Cat.N°	12340155

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