

Recombinant Mouse Interleukin-15 (IL-15 Mouse)

Source: E.Coli

Catalog No.: CYT-344

Introduction:

The protein encoded by this gene is a cytokine that regulates T and natural killer cell activation and proliferation. This cytokine and interleukin 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 :

Interleukin-15 Mouse Recombinant produced in E.Coli is a single, non-glycosylated polypeptide chain containing 115 amino acids and having a molecular mass of 13321 Dalton. The IL-15 is purified by proprietary chromatographic techniques.

Synonyms:

IL-15, MGC9721.

Physical Appearance:

Sterile Filtered White Lyophilized (freeze-dried) powder.

Formulation:

The protein was lyophilized from a concentrated (1mg/ml) solution with 10mM Tris pH 8.0.

Solubility:

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

Stability:

Lyophilized Interleukin 15 although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution IL15 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 avoid freeze-thaw cycles.

Purity:

Greater than 98.0% as determined by:

- (a) Analysis by RP-HPLC.
- (b) Analysis 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:

The ED50 as determined by the dose-dependant stimulation of the proliferation of mouse CTLL-2 was found to be < 5 ng/ml, corresponding to a Specific Activity of 2×10^5 IU/mg.

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. This value is calculated by the PC GENE computer analysis program of protein sequences (IntelliGenetics).
2. Analysis by RP-HPLC, using a calibrated solution of IL-15 as a Reference Standard.

Usage:

Product is furnished for LABORATORY RESEARCH USE ONLY. The product may not be used as drugs, agricultural or pesticidal products, food additives or household chemicals.

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