



PRODUCT DATA SHEET

Product: Interleukin-15 (recombinant mouse)

Cat. No.: BC-286 (10 µg)

Synonyms:

IL-15, MGC9721

Background:

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 Interleukin-15 produced in *E. Coli* is a single, non-glycosylated, polypeptide chain containing 115 amino acids and having a molecular mass of 13,321 Dalton. The IL-15 is purified by proprietary chromatographic techniques.

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.

Origin:

Produced in *E. Coli*.

Format:

Sterile Filtered White lyophilized (freeze-dried) powder. Lyophilized from a concentrated (1 mg/mL) solution with 10 mM Tris pH 8.0.

Purity:

Greater than 98.0% as determined by RP-HPLC and SDS-PAGE.

Reconstitution:

Reconstitute the lyophilized Recombinant Mouse IL-15 in sterile 18MΩ-cm H₂O not less than 100 µg/mL, which can then be further diluted to other aqueous solutions.

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 x 10⁵ IU/mg.

Storage:

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

Limitations:

For *in vitro* research use only. Not for use in diagnostics or in humans.

Warranty:

No warranties, expressed or implied, are made regarding the use of this product. KAMIYA BIOMEDICAL COMPANY is not liable for any damage, personal injury, or economic loss caused by this product.