

PRODUCT DATA SHEET



Bioworld Technology, Inc.

Recombinant Human Interleukin-15 (rHuIL-15)

Catalog Number: PR1062

Source: Escherichia coli.

Quantity: 2µg/10µg/1.0mg

Description

Interleukin 15 is a recently identified novel cytokine that shares many biological properties with IL-2, including T, B and NK cell-stimulatory activities. cDNA clones encoding this cytokine have been isolated from simian, murine and human cell sources. Human IL-15 shares approximately 97% and 73% sequence identity with simian and murine IL-15, respectively. Both human and simian IL-15 are active on murine cells. Human IL-15 cDNA encodes a 162 amino acid residue precursor protein containing a 48 amino acid residue signal peptide that is cleaved to yield the 114 amino acid residue mature protein. The IL-15 mRNA is expressed by a wide variety of cells and tissues and is most abundantly expressed by adherent peripheral blood mononuclear cells, fibroblasts and epithelial cells. However, in activated peripheral blood T lymphocytes where IL-2 is highly expressed, the expression of IL-15 is not detectable. Although IL-15 lacks sequence homology with IL-2, it has recently been shown that both the beta and gamma chains of the IL-2 receptor are utilized for IL-15 binding and signaling. In addition, an IL-15 specific binding protein has also been cloned from a mouse T cell clone. (Grabstein, K. et al., 1994, Science 264:965; Giri, J. et al., 1994, EMBO J. 13:2822).

Molecular Weight:

Approximately 12.9 kDa, a single non-glycosylated polypeptide chain containing 115 amino acids.

Purity:

>96% by SDS-PAGE and HPLC analyses.

Biological Activity:

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 < 0.5 ng/ml., corresponding to a specific activity of > 2 x 10⁶ units/mg.

Physical Appearance:

Sterile Filtered White lyophilized (freeze-dried) powder.

Formulation:

Lyophilized from a 0.2mm filtered concentrated solution in PBS, pH 7.4.

AA Sequence:

M N W V N V I S D L K K I E D L I Q S M H I D A T L Y
T E S D V H P S C K V T A M K C F L L E L Q V I S L E
S G D A S I H D T V E N L I I L A N N S L S S N G N V T
E S G C K E C E E L E E K N I K E F L Q S F V H I V Q M
F I N T S

Endotoxin:

Less than 1EU/mg of rHuIL-15 as determined by LAL method.

Reconstitution:

We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in sterile distilled water or aqueous buffer containing 0.1% BSA to a concentration of 0.1-1.0 mg/mL. Stock solutions should be apportioned into working aliquots and stored at <-20°C. Further dilutions should be made in appropriate buffered solutions.

Storage:

This lyophilized preparation is stable at 2-8°C, but should be kept at -20°C for long term storage, preferably desiccated.

MADE IN CHINA

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Upon reconstitution, the preparation is stable for up to one week at 2-8°C. For maximal stability, apportion the reconstituted preparation into working aliquots and store at -20°C to -70°C. Avoid repeated freeze/thaw cycles.

Usage:

This material is offered by USA Bioworld biotech for research, laboratory or further evaluation purposes. NOT FOR HUMAN USE. Made in China

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