



User Manual

Interleukin-2 (IL-2) (Human)

Cat. No. HEILP-02013



Description:

Interleukin-2 is a protein that has a variety of immunologic functions, the most notable being the ability of IL-2 to promote the proliferation and maturation of activated T cells. A comparison of the amino acid sequences of human and murine IL-2 shows an approximately 60% sequence similarity, and human sequence IL-2 has been found to be active on murine cell lines. Some of the biological activities attributed to IL-2 include: induction of secretion of interferon- γ and tumor necrosis factors - α and - β from peripheral blood mononuclear cells stimulation of the rate of synthesis of c-myc RNA and transferrin receptor activation of neutrophils stimulation of proliferation and maturation of activated helper T cells stimulation of proliferation of activated and natural killer cells and tumor-infiltrating lymphocytes, as well as enhancement of the ability of these cytotoxic lymphocytes to kill target cells induction of the expression of IL-2 receptors on T cells stimulation of proliferation of antibody-producing B cells

Source:

Escherichia coli

Unit:

1 mg

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 $< -20^{\circ}\text{C}$. Further dilutions should be made in appropriate buffered solutions.

Formulation:

Lyophilized from a 0.2 μm filtered concentrated solution in PBS, pH 6.0.

Storage:

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

Molecular Weight:

Approximately 15.4 kDa, a single non-glycosylated polypeptide chain containing 133 amino acids.

Endotoxin:

Less than 1 EU/μg of IL-2 as determined by LAL method.

Usage:

This material is offered by Cyagen Biosciences for research, laboratory or further evaluation purposes. FOR RESEARCH USE ONLY. NOT INTENDED FOR ANY ANIMAL OR HUMAN THERAP EUTIC OR DIAGNOSTIC USE.

Biological Activity:

The ED50 determined by a cell proliferation assay using murine CTLL-2 cells is less than 0.1 ng/mL, corresponding to a specific activity of $> 1.0 \times 10^7$ IU/mg.

Physical Appearance:

Sterile filtered white lyophilized (freeze-dried) powder.

AA Sequence:

APTSSSTKKT QLQLEHLLLD LQMILNGINN YKNPKLTRML TFKFYMPKKA
TELKHLQCLE EELKPLEEVL NLAQSKNFHL RPRDLISNIN VIVLELKGSE TTFMCEYADE
TATIVEFLNR WITFCQSIIS TLT

Purity:

> 97% by SDS-PAGE and HPLC analyses.

Material Safety Data Sheets (MSDSs) are available upon request.

The Certificate of Analysis (COA), which provides detailed quality control information for each product, is also available at the Cyagen website.

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