



Interleukin-2, human recombinant (rHuIL-2)

Catalog No: 50442
Lot No: XXXXX
Source: *E. coli*
Synonyms: T-cell growth factor (TCGF), Aldesleukin, Lymphokine, IL-2, IL2

Background

IL2 is a secreted cytokine that is important for the proliferation of T and B lymphocytes. The receptor of this cytokine is a heterotrimeric protein complex whose gamma chain is also shared by interleukin 4 (IL4) and interleukin 7 (IL7). The expression of this gene in mature thymocytes is monoallelic, which represents an unusual regulatory mode for controlling the precise expression of a single gene. The targeted disruption of a similar gene in mice leads to ulcerative colitis-like disease, which suggests an essential role of this gene in the immune response to antigenic stimuli.

Description

Interleukin-2 human recombinant produced in *E. coli* is a single, non-glycosylated polypeptide chain containing 133 amino acids and having a molecular mass of 15.4 kDa. IL-2 is purified by proprietary chromatographic techniques.

Physical Appearance

Sterile filtered white lyophilized (freeze-dried) powder.

Formulation

The protein was lyophilized from a 0.2 µm filtered concentrated solution (1 mg/ml) in PBS, pH 5.0.

Solubility

It is recommended to reconstitute the lyophilized Interleukin-2 in sterile distilled water not less than 100 µg/ml, which can then be further diluted to other aqueous solutions.

Stability

Lyophilized Interleukin-2, although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution IL-2 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 97.0% as determined by (a) Analysis by RP-HPLC, (b) Analysis by SDS-PAGE.

Amino Acid Sequence

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

Activity

The ED50 as determined by the dose-dependent stimulation of murine CTLL-2 cells is < 0.1 ng/ml, corresponding to a Specific Activity of 1x10⁷ IU/mg.

Usage

This product is offered by Biomol for research purposes only. Not for diagnostic purposes or human use. It may not be resold or used to manufacture commercial products without written approval of Biomol GmbH.

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