ADVANCED TARGETING SYSTEMS

6352 CORTE DEL ABETO, STE B
CARLSBAD, CA 92011 USA
01.858.642.1988 • WWW.ATSBIO.COM

Interleukin-2 Human Recombinant

CYTOKINE

Catalog Number: PRP-209CYT
Quantity: 10 micrograms, 50 micrograms, 1 milligram
Format: Sterile-filtered white lyophilized (freeze-dried) powder
Host: *E. coli*

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.

Specificity and Preparation:
Interleukin-2 human recombinant produced in *E. coli* is a single, non-glycosylated mutein (variant form) of human IL-2 polypeptide chain containing 134 amino acids and having a molecular mass of 15517 Dalton. The IL-2 is purified by proprietary chromatographic techniques. Purity is greater than 98.0% as determined by RP-HPLC and SDS-PAGE. The ED_{50} as determined by the dose-dependent stimulation of murine CTLL-2 cells is < 0.0645 ng/ml, corresponding to a specific activity of 16.9 MIU/mg.
Protein quantitation was carried out by two independent methods: UV spectroscopy at 280 nm using the absorbency value of 0.614 as the extinction coefficient for a 0.1% (1 mg/ml) solution; and analysis by RP-HPLC using a calibrated solution of IL-2 as a reference standard. The protein (1.1 mg/ml) was lyophilized after extensive dialysis against 0.17 mg sodium monobasic and 0.89 mg dibasic sodium phosphate buffer to a pH=7.5.
The sequence of the first five N-terminal amino acids was determined and was found to be Met-Ala-Pro-Thr-Ser. Our Interleukin-2 has an Ser substitute for Cysteine at position 126.

Usage and Storage:
Reconstitute in sterile 20mM AcOH not less than 100μg/ml, which can then be further diluted to other aqueous solutions. Gently spin down material before use; 5-10 seconds in a microfuge should be adequate. Lyophilized material, although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. After reconstitution, if not intended for use within a month, aliquot and store 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 repeated freezing and thawing.

To view protocol(s) for this and other products please visit: www.ATSbio.com/support/protocols