



Genemed Synthesis, Inc.
6203 Wood Lake Center Dr., Bldg. 2, San Antonio, TX 78244, USA
Toll free (800) 344-5337; **Phone:** (210) 745-5988; **Fax** (210) 745-5992
Email: info@genemedsyn.com, **Website:** www.genemedsyn.com

Product Data Sheet

Cat # SB-013-10	Recombinant Human Interleukin-2 (IL2)	Size: 10 ug
Cat # SB-013-50	Recombinant Human Interleukin-2 (IL2)	Size: 50 ug
Cat # SB-013-1000	Recombinant Human Interleukin-2 (IL2)	Size: 1000 ug

Background:

In vitro studies performed on human cell lines demonstrate the immunoregulatory properties of IL-2 including: 1) enhancement of lymphocyte mitogenesis and stimulation of long-term growth of human IL-2 dependent cell lines; 2) enhancement of lymphocyte cytotoxicity; 3) induction of killer cell (lymphokine-activated (LAK) and natural (NK)) activity; 4) induction of interferon-gamma production.

Description:

Recombinant Human interleukin-2 is a highly purified protein with a molecular weight of approximately 15,300 Daltons. The chemical name is des-alanyl-1, serine-125 human interleukin-2. It is produced by recombinant DNA technology using a genetically engineered *E. coli* strain containing an analog of the human interleukin-2 gene. Genetic engineering techniques were used to modify the human IL-2 gene, and the resulting expression clone encodes a modified human IL-2. This recombinant form differs from native interleukin-2 in following ways: 1) it is not glycosylated; 2) the molecule has no N-terminal alanine; 3) the molecule has serine substituted for cysteine at amino acid position 125; 4) the aggregation state of molecule is likely to be different from that of native IL-2.

Quality Control:

Biological activity: The ED50 as determined by the dose-dependant stimulation of murine CTLL-2 cells is less than 0.1 ng/ml, corresponding to a Specific Activity of 1.0×10^7 IU/ mg.

Purity: Greater than 95% as determined by

- (a) Analysis by SEC-HPLC.
- (b) Analysis by reducing and non-reducing SDS-PAGE Silver Stained gel.

Isoelectric Point: the main zone between 6.5~7.5 analysis by IEF.

Amino-Acid Sequence: The sequence of the first fifteen N-terminal amino acids was determined and was found to be Met-Ala-Pro-Thr-Ser-Ser-Ser-Thr-Lys-Lys-Thr-Gln-Leu- Gln-Leu-Glu.

Endotoxin: Less than 0.1ng/μg (0.1IEU/μg) determined by LAL test.

Formulation: The protein (1.1mg/ml) was lyophilized after extensive dialysis against 0.17mg sodium monobasic and 0.89mg dibasic sodium phosphate buffer to a pH=7.5.

Storage: Lyophilized rHuIL-2 although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution rHuIL-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 avoid freeze-thaw cycles.

Reconstitution: It is recommended to reconstitute the lyophilized rHuIL-2 in sterile 18M Ω -cm H₂O not less than 100μg/ml, which can then be further diluted to other aqueous solutions

Usage:

This item is for LABORATORY RESEARCH USE ONLY. The product may not be used as drugs, agricultural or pesticidal products, food additives or household chemicals. If supplied in powder then reconstitute it in 100 ul water for 1 mg/ml stock and store in liquid at 4°C for ~1 week or aliquots in suitable size and store at -20°C for long term storage..