

## DATASHEET

Version 20181206

# IL-2, Human

**Cat. No.:** Z00368-1

**Size:** 1.0 mg

**Synonyms:** rHuIL-2; rHuIL2; Interleukin-2; Interleukin2

### Description:

*In vitro* studies performed on human cell lines demonstrate the immunoregulatory properties of Interleukin-2 (IL-2) including: 1) enhancement of lymphocyte mitogenesis and stimulation of long-term growth of human Interleukin-2 (IL-2) dependent edll lines; 2) enhancement of lymphocyte cytotoxicity; 3) induction of killer cell (lymphokine-activated (LAK) and natural (NK)) activity; 4) induction of interferon-gamma production. Recombinant human Interleukin-2 (IL-2) is a highly purified protein with a molecular weight of approximately 15,300 Da. 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 Human Interleukin-2 (IL-2) gene.

### Amino Acid Sequence:

Ala<sup>21</sup>-Thr<sup>153</sup> (Accession #: P60568), With a N-terminal Met

```
00001 MAPTSSSTKK TQLQLEHLL DLQMILNGIN NYKNPKLTRM
00041 LTFKFYMPKK ATELKHLQCL EEELKPLEEV LNLAQSKNFH
00081 LRPRDLISNI NVIVLELKG ETTFMCEYAD ETATVEFLN
00121 RWITFCQSII STLT
```

**Source:** *E. coli*

**Species:** Human

**Biological Activity:** The ED<sub>50</sub> as determined by the dose-dependant stimulation of the proliferation of CTLL-2 was found to be < 0.1 ng/ml, corresponding to a specific activity of > 1x10<sup>7</sup> IU/mg.

**Molecular Weight:** 15,300 Da

**Sequence Analysis:** The sequence of the first five N-terminal amino acids has been found to be Met-Ala-Pro-Thr-Ser-Ser.

**Formulation:** The protein was lyophilized after extensive dialysis against 50mM Phosphate buffer, pH7.5, 5% Mannitol buffer.

**Reconstitution:** It is recommended to reconstitute the lyophilized recombinant human Interleukin-2 (IL-2) in sterile 18 MΩ-cm H<sub>2</sub>O not less than 100 µg/ml, which can then be further diluted to other aqueous solutions.

**Purity:** Greater than 95% as determined by the following methods:

- (a) SEC-HPLC analysis
- (b) Reducing and non-reducing SDS-PAGE silver-stained gel analysis

**Endotoxin Level:** Less than 0.1 ng/µg (1 EU/µg) of recombinant human Interleukin-2 (IL-2) as determined by LAL test.

**Storage:** Lyophilized recombinant human Interleukin-2 (IL-2) remains stable at room temperature for three weeks, but it is best stored desiccated below -18°C. Upon reconstitution recombinant human Interleukin-2 (IL-2) should be stored at 4°C for up to seven days. For long term storage it is recommended that a carrier protein (0.1% HSA or BSA) be added. Avoid repeated freeze-thaw cycles.