

## IL-2 Protein, Human

Cat. No.:	HY-P7037
Synonyms:	rHuIL-2;IL2;T-cell Growth Factor;TCGF;Aldesleukin
Species:	Human
Source:	E. coli
Accession:	P60568 (A21-T153)
Gene ID:	3558
Molecular Weight:	Approximately 13-17 kDa

### PROPERTIES

AA Sequence	<p>A P T S S S T K K T      Q L Q L E H L L L D      L Q M I L N G I N N      Y K N P K L T R M L</p> <p>T F K F Y M P K K A      T E L K H L Q C L E      E E L K P L E E V L      N L A Q S K N F H L</p> <p>R P R D L I S N I N      V I V L E L K G S E      T T F M C E Y A D E      T A T I V E F L N R</p> <p>W I T F C Q S I I S      T L T</p>
Biological Activity	<p>1. The ED<sub>50</sub> as determined by the dose-dependant stimulation of the proliferation of CTLL-2 was found to be &lt;0.1 ng/ml, corresponding to a specific activity of &gt; 1.0 × 10<sup>7</sup> IU/mg.</p> <p>2. The ED<sub>50</sub> is ≤0.7103 ng/mL as measured by CTLL-2 cells, corresponding to a specific activity of &gt;1.407 × 10<sup>6</sup> units/mg.</p>
Appearance	Lyophilized powder
Formulation	Lyophilized from a 0.2 μm filtered solution in 10 mM sodium citrate, pH 4.0 or 50 mM Tris-HCL, 300 mM NaCl, pH 8.0 or 10 mM sodium citrate, pH 4.0, 8% trehalose.
Endotoxin Level	<1 EU/μg, determined by LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH <sub>2</sub> O. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

### DESCRIPTION

Background	Recombinant human interleukin-2 (IL-2) expressed as Escherichia coli is isolated as insoluble aggregates of protein (inclusion bodies) after cell breakage. Interleukin 2 (IL-2), a cytokine secreted by activated T cells, promotes the differentiation and proliferation of lymphoid cells as well as enhances the cell-mediated immune response to infections.
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Therefore IL-2 has been used as an adjunctive immunotherapeutic agent to control some infectious diseases, such as leishmaniasis, leprosy, and HIV infection<sup>[1]</sup>.

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## REFERENCES

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[1]. Zhang R, et al. Therapeutic effects of recombinant human interleukin 2 as adjunctive immunotherapy against tuberculosis: A systematic review and meta-analysis. PLoS One. 2018 Jul 19;13(7):e0201025.

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**Caution: Product has not been fully validated for medical applications. For research use only.**

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