

Recombinant Porcine Interleukin-2 (rp IL-2)

Synonyms: T-cell growth factor (TCGF), Aldesleukin, Lymphokine.

Introduction: IL-2 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 (IL-4) and Interleukin 7 (IL-7). 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: Porcine Recombinant Interleukin 2 produced in E.Coli is a single, non-glycosylated polypeptide chain containing 134 amino acids and having a molecular mass of 15217 Dalton. The rp IL-2 is purified by proprietary chromatographic techniques.

Source: *Escherichia Coli*.

Physical Appearance: Sterile filtered white lyophilized (freeze-dried) powder.

Formulation: Lyophilized from a concentrated (1 mg/ml) solution in water containing no additives. The aliquots of 1µg and 2µg contain Trehalose 5% (w/vol) for better recovery

Solubility: It is recommended to reconstitute the lyophilized IL-2 in sterile 20mM AcOH (acetic acid) not less than 100µg/ml which can then be further diluted to other aqueous solutions.

Stability: Lyophilized rp IL-2 although stable at room temperature for 3 weeks, should be stored desiccated below -18° C . Upon reconstitution rp 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 95.0% as determined by:

- (a) Analysis by RP-HPLC.
- (b) Analysis by SDS-PAGE.

Amino acid sequence: The sequence of the first five N-terminal amino acids was determined and was found to be Met-Ala-Pro-Thr-Ser.

Biological Activity: The ED₅₀ as determined by the dose-dependant murine CTLL cells proliferation assay with MTS detection is < 0.1 ng/ml, corresponding to a Specific Activity of 1x 10⁷ IU/mg.

Protein content: Protein quantitation was carried out by two independent methods:

1. UV spectroscopy at 280 nm using the absorbency value of 0.714 as the extinction coefficient for a 0.1% (1mg/ml) solution. This value is calculated by the PC GENE computer analysis program of protein sequences (IntelliGenetics).
2. Analysis by RP-HPLC, using a calibrated solution of IL-2 as a Reference Standard.

This material is offered for **research only**. Not for use in human. For in vitro use only. ImmunoTools will not be held responsible for patent infringement or other violations that may occur with the use of our products.

<i>small</i>	2 µg	Cat.N°	16340022
<i>medium</i>	10 µg	Cat.N°	16340033

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