

Recombinant Human Interleukin-2 (rh 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 and Interleukin 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: Recombinant human IL-2 produced in *E.Coli* is a single, non-glycosylated polypeptide chain containing 134 amino acids and having a molecular mass of 15.5 kDa. The rh IL-2 is purified by proprietary chromatographic techniques.

Source: *Escherichia Coli*.

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

Formulation: Lyophilised from a 0.22 µm filtered solution in 25 mM sodium phosphate, 500mM NaCl, pH 5.5
The aliquots/samples of 1µg contain Trehalose 5% (w/vol) for better recovery

Solubility: It is recommended to spin down before reconstitution. Reconstitute the lyophilized rh IL-2 in sterile water to a concentration not less than 100 µg/ml, which can then be further diluted to other aqueous solutions.

Stability: Lyophilized rh IL-2 although stable at room temperature for 3 weeks, should be stored desiccated below -18° C. Upon reconstitution rh 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 SDS-PAGE Silver stain.

Endotoxicity: The endotoxin level is less than 1 EU / µg determined by LAL method.

Amino acid Sequence: MAPTSSSTKK TQLQLEHLLL DLQMILNGIN NYKNPKLTRM LTFKFYMPKK
ATELKHQLQL EEELKPLEEV LNLAQSKNFH LRPRDLISNI NVIVLELKGS ETTFMCEYAD ETATIVEFLN
RWITFCQSII STLT

Biological Activity: Determined by dose dependent stimulation of proliferation of murine CTLL-2 cells the specific activity is of 1 x 10⁷ IU/mg.

This material is offered for **research use 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>	10 µg	Cat.N°	11340023
<i>medium</i>	50 µg	Cat.N°	11340025
<i>large</i>	250 µg	Cat.N°	11340027
<i>x-large</i>	1000 µg	Cat.N°	11340028

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