

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
ATELKHQLQCL 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.

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<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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