

## Recombinant Human IL2 therapeutic protein(Aldesleukin)

Cat. No. IL2-P044H Lot. No. (See product label)

### SPECIFICATION

**Product Overview**

Recombinant Human Interleukin 2 is produced by recombinant DNA technology using a genetically engineered E. coli strain containing an analog of the human interleukin-2 gene. Genetic engineering techniques were used to modify the human IL-2 gene, and the resulting expression clone encodes a modified human interleukin-2. This recombinant form differs from native interleukin-2 in the following ways: a) Aldesleukin is not glycosylated because it is derived from E. coli; b) the molecule has no N-terminal alanine; the codon for this amino acid was deleted during the genetic engineering procedure; c) the molecule has serine substituted for cysteine at amino acid position 125.

**Species** Human

**Source** E.coli

**Description**

The protein encoded by this gene 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 (IL4) and interleukin 7 (IL7). 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. Our expression product is the active ingredient of Proleukin.

 Tel: 1-631-559-9269 1-516-512-3133

 Email: [info@creative-biomart.com](mailto:info@creative-biomart.com)  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

<b>Molecular Mass</b>	15.3 Kda
<b>AA Sequence</b>	MAPTSSSTKKTQLQLEHLLLDLQMILNGINNYKNPKLTRMLTFKFYMPKKATELKHLQ CLEEELKPLEEVL NLAQSKNFHLRPRDLISININVIVLELKGSETTFMCEYADETATIVE FLNRWITFCQSIISTLT
<b>Endotoxin</b>	< 1.0 EU per µg of the protein
<b>Purity</b>	>95%
<b>Storage</b>	Can be stored at +4 centigrade short term (1-2weeks). For long term storage, aliquot and store at -20 centigrade or -70 centigrade. Avoidrepeated freezing and thawing cycles.
<b>Alias</b>	IL2; TCGF; IL-2; Aldesleukin

## GENE INFORMATION

<b>Gene Name</b>	IL2 interleukin 2 [ Homo sapiens ]
<b>Official Symbol</b>	IL2
<b>Synonyms</b>	IL2; interleukin 2; interleukin-2; IL 2; T cell growth factor; TCGF; aldesleukin; involved in regulation of T-cell clonal expansion; IL-2; lymphokine;
<b>Gene ID</b>	3558
<b>mRNA Refseq</b>	NM_000586
<b>Protein Refseq</b>	NP_000577

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<b>MIM</b>	147680
<b>UniProt ID</b>	P60568
<b>Chromosome Location</b>	4q26-q27
<b>Pathway</b>	Allograft rejection, organism-specific biosystem; Allograft rejection, conserved biosystem; Autoimmune thyroid disease, organism-specific biosystem; Autoimmune thyroid disease, conserved biosystem; Calcineurin-regulated NFAT-dependent transcription in lymphocytes, organism-specific biosystem; Calcium signaling in the CD4+ TCR pathway, organism-specific biosystem; Chagas disease (American trypanosomiasis), organism-specific biosystem;
<b>Function</b>	carbohydrate binding; cytokine activity; glycosphingolipid binding; growth factor activity; interleukin-2 receptor binding; interleukin-2 receptor binding; kappa-type opioid receptor binding; kinase activator activity;

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