

## Active Recombinant Human Interleukin 2

**Cat. No.** IL2-116H    **Lot. No.** (See product label)

### SPECIFICATION

<b>Product Overview</b>	Recombinant Human interleukin 2 protein sequence (containing the signal peptide sequence, and the mature human Interleukin 2 sequence) was expressed in modified <i>human 293 cells</i> .
<b>Species</b>	Human
<b>Source</b>	HEK293
<b>Description</b>	Interleukin-2 (IL-2) is a pleotropic glycoprotein that mediates the production of regulatory T cells and promotes T cell dependent tolerance. Additionally, IL-2 promotes the proliferation of antigen-activated T lymphocytes, facilitates the cytolytic activity of natural killer (NK) cells and stimulates anti-tumor activity in monocytes by inducing synthesis of GM-CSF, IL-1b and IL-6. IL-2 also promotes the proliferation of large granular lymphocytes and the growth and differentiation of mitogen activated B lymphocytes in vitro.
<b>Amino Acid Sequence</b>	APTSSSTK KTQLQL EHLLLDLQ MILNGIN NYKNPKLT RMLTFKFY MPKKATEL KHLQCLEE ELKPLEEVN NLQSK NFHLRPRD LISNINVIVLELKG SETTF MCEY ADE TATIVEFL NRWITFCQSIISTLT.
<b>Molecular Mass</b>	IL-2 migrates as a band between 15 and 18 kDa in SDS-PAGE due to post-translation modifications, in particular glycosylation. This compares with the unmodified IL-2 that has a predicted molecular mass of 15.4 kDa.
<b>PI</b>	IL-2 separates into a number of isoforms with a pI between 6.0 and 7.4 in 2D PAGE

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due to post-translational modifications, in particular glycosylation. This compares with the unmodified IL-2 that has a predicted pI of 7.05.

<b>% Carbohydrate</b>	Purified IL-2 consists of 0-15% carbohydrate by weight.
<b>Glycosylation</b>	IL-2 has O-linked oligosaccharides.
<b>Purity</b>	>95%, as determined by SDS-PAGE and visualized by silver stain.
<b>Formulation</b>	When reconstituted in 0.5 ml sterile phosphate-buffered saline, the solution will contain 1% human serum albumin (HSA) and 10% trehalose.
<b>Reconstitution</b>	It is recommended that 0.5 ml of sterile phosphate-buffered saline be added to the vial.
<b>Storage</b>	Lyophilized products should be stored at 2 to 8°C. Following reconstitution short-term storage at 4°C is recommended, and longer-term storage of aliquots at -18 to -20°C. Repeated freeze thawing is not recommended.
<b>Activity</b>	The ED <sub>50</sub> of IL-2 is typically 0.15- 0.25 ng/ml as measured in a cell proliferation assay using the IL-2 dependent murine CTLL-2 T cell line.

## GENE INFORMATION

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

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<b>mRNA Refseq</b>	NM_000586
<b>Protein Refseq</b>	NP_000577
<b>MIM</b>	147680
<b>UniProt ID</b>	P60568
<b>Chromosome Location</b>	22q13.1
<b>Pathway</b>	Cytokine-cytokine receptor interaction; Endocytosis; Jak-STAT signaling pathway
<b>Function</b>	interleukin-2 receptor activity; receptor activity

**Human Interleukin 2  
crystal structure.**

