

Active Recombinant Human Interleukin 2

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

SPECIFICATION

Product Overview	Recombinant Human interleukin 2 protein sequence (containing the signal peptide sequence, and the mature human Interleukin 2 sequence) was expressed in modified human 293 cells.
Species	Human
Source	HEK293
Description	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.
Amino Acid Sequence	APTSSSTK KTQLQL EHLLLDLQ MILNGIN NYKNPKLT RMLTFKFY MPKKATEL KHLQCLEE ELKPLEEVL NLAQSK NFHLRPRD LISNINVIVLELKG SETTF MCEY ADE TATIVEFL NRWITFCQSIISTLT.
Molecular Mass	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.
PI	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.
% Carbohydrate	Purified IL-2 consists of 0-15% carbohydrate by weight.
Glycosylation	IL-2 has O-linked oligosaccharides.
Purity	>95%, as determined by SDS-PAGE and visualized by silver stain.
Formulation	When reconstituted in 0.5 ml sterile phosphate-buffered saline, the solution will contain 1% human serum albumin (HSA) and 10% trehalose.
Reconstitution	It is recommended that 0.5 ml of sterile phosphate-buffered saline be added to the vial.
Storage	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.
Activity	The ED ₅₀ 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

Gene Name	IL2 interleukin 2 [Homo sapiens]
Synonyms	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
Gene ID	3558

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

**Human Interleukin 2
crystal structure.**

