

Active Recombinant Human IL2, His-tagged

Cat. No. IL2-25H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human IL2 was produced in the endosperm tissue of barley grain (<i>Hordeum vulgare</i>).
Species	Human
Source	Barley Grain
Description	Interleukin 2 (IL-2) is a potent immunoregulatory growth factor produced by T-cells following stimulation by mitogens or allogens. IL-2 promotes growth and differentiation of various cells of the immune system, such as activated T-cells and B-cells, NK cells, lymphokine activated killer cells, monocytes and macrophages. It is essential for proper immune response, it may also be an important factor in the natural suppression of autoimmunity. IL-2 may be of use as an anti-tumor agent in cancer therapy. Human and mouse IL-2 share 56% aa sequence identity and exhibit cross-species activity.
Form	Sterile filtered through a 0.2 µm filter. Lyophilized from PBS, pH 7.2.
Bio-activity	Recombinant human IL-2 is assayed by measuring its dose dependent effect on proliferation of CTLL-2 cells. The ED50 for this effect is typically < 1.25 ng/ml, corresponding to a specific activity > 1 x10 ⁶ U/mg. Optimal concentration should be determined for specific applications and cell lines.
Molecular Mass	Recombinant human IL-2 contains 133 amino acids and a 16 a.a. histidine-based tag for a total length of 149 a.a. and has a predicted molecular mass of 17.5 kDa. The

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	recombinant protein migrates with an apparent molecular mass of 22 kDa in SDS-PAGE.
Endotoxin	Endotoxin level is less than 0.005ng per µg of product (0.05EU/µg).
Purity	Greater than 95% by SDS-PAGE gel analysis.
Storage	The lyophilized protein, though stable at room temperature for few weeks, is best stored at -20°C. Reconstituted protein should be used immediately or stored in working aliquots at -20°C. Avoid repeated freeze-thaw cycles.
Reconstitution	Always centrifuge the vial before opening. It is recommended to reconstitute the lyophilized protein in sterile water to a concentration of no less than 100 µg/ml. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA).

GENE INFORMATION

Gene Name	IL2 interleukin 2 [Homo sapiens]
Official Symbol	IL2
Synonyms	IL2; interleukin 2; interleukin-2; IL 2; T cell growth factor; TCGF; aldesleukin; involved in regulation of T-cell clonal expansion; IL-2; lymphokine;
Gene ID	3558
mRNA Refseq	NM_000586
Protein Refseq	NP_000577
MIM	147680

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UniProt ID	P60568
Chromosome Location	4q26-q27
Pathway	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;
Function	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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