

## GMP Recombinant Human IL2 protein

**Cat. No.** IL2-4317HG    **Lot. No.** (See product label)

### SPECIFICATION

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|-------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Product Overview</b> | Recombinant Human IL2 protein was expressed in Escherichia coli. This product is produced under cGMP guidelines.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Species</b>          | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Source</b>           | E.coli                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>ProteinLength</b>    | 133                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Description</b>      | IL-2 is a powerful immunoregulatory lymphokine produced by T-cells in response to antigenic or mitogenic stimulation. It is expressed by CD4+ and CD8+ T cells, $\gamma\delta$ T cells, B cells, dendritic cells, and eosinophils. IL-2/IL-2R signaling is required for T-cell proliferation and other fundamental functions which are essential for the immune response. The receptor for IL-2 consists of three subunits (55 kDa IL2R $\alpha$ , 75 kDa IL2R $\beta$ , 64 kDa common gamma chain $\gamma c$ /IL2R $\gamma$ ) that are present on the cell surface in varying preformed complexes. Mature human IL-2 shares 56 % and 66 % amino acid sequence identity with mouse and rat IL-2, respectively. Human and mouse IL-2 exhibit cross-species activity. |
| <b>Form</b>             | Lyophilized from a 0.2 $\mu$ m filtered concentrated solution in 20 mM PB, pH 3.5.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Bio-activity</b>     | Fully biologically active when compared to standard. The ED50 as determined by a cell proliferation assay using murine CTLL-2 cells is less than 0.1 ng/ml, corresponding to a specific activity of $> 1.0 \times 10^7$ IU/mg.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |

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|                       |                                                                                                                                                                                                                                                                                                                                                                                                          |
|-----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Molecular Mass</b> | Approximately 15.4 kDa, a single non-glycosylated polypeptide chain containing 133 amino acids.                                                                                                                                                                                                                                                                                                          |
| <b>AA Sequence</b>    | APTSSSTKKTQLQLEHLLLDLQMILNGINNYKNPKLTRMLTFKFYMPKKATELKHLQC<br>LEEELKPLEEVLNLAQSKNFHLRPRDLISNINVIVLELKGSETTFMCEYADETATIVEFL<br>NRWITFCQSIISTLT                                                                                                                                                                                                                                                            |
| <b>Endotoxin</b>      | Less than 0.01 EU/g of rHuIL-2 GMP as determined by LAL method.                                                                                                                                                                                                                                                                                                                                          |
| <b>Purity</b>         | >98% by SDS-PAGE and HPLC analysis.                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Storage</b>        | Use a manual defrost freezer and avoid repeated freeze-thaw cycles. 12 months from date of receipt, -20 to -70 centigrade as supplied. 1 month, 2 to 8 centigrade under sterile conditions after reconstitution. 3 months, -20 to -70 centigrade under sterile conditions after reconstitution.                                                                                                          |
| <b>Reconstitution</b> | We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in sterile distilled water to a concentration of 0.1-1.0 mg/mL. Stock solutions should be apportioned into working aliquots and stored at ≤-20 centigrade. Further dilutions should be made in appropriate buffered solutions. Do not reconstitute in cell culture media directly. |

## GENE INFORMATION

|                        |                                                                                                                                                        |
|------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Gene Name</b>       | IL2                                                                                                                                                    |
| <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; |

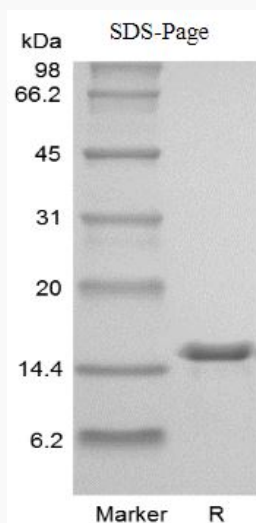
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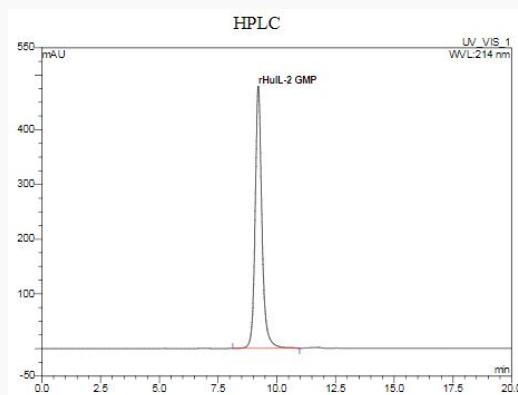
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|----------------|-----------|
| Gene ID        | 3558      |
| mRNA Refseq    | NM_000586 |
| Protein Refseq | NP_000577 |
| MIM            | 147680    |
| UniProt ID     | P60568    |

**SDS-PAGE of IL2-4317HG**



**HPLC of IL2-4317HG**

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