

## Recombinant Rat Interleukin 7

Cat. No. IL7-174R    Lot. No. (See product label)

### SPECIFICATION

|                            |                                                                                                                                                                                                                                                                                                                               |
|----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Product Overview</b>    | Recombinant rat IL-7 is a 15.0 kDa protein containing 130 amino acid residues. It was expressed in <i>E. Coli</i> .                                                                                                                                                                                                           |
| <b>Species</b>             | Rat                                                                                                                                                                                                                                                                                                                           |
| <b>Source</b>              | E.coli                                                                                                                                                                                                                                                                                                                        |
| <b>Description</b>         | IL-7 is a hematopoietic growth factor which affects primarily early B and T cells. Produced by thymic stromal cells, spleen cells and keratinocytes, IL-7 can also co-stimulate the proliferation of mature T cells in combination with other factors such as ConA and IL-2. Human and murine IL-7 is cross-species reactive. |
| <b>Specific Activity</b>   | > 5 x 10 <sup>6</sup> units/mg.                                                                                                                                                                                                                                                                                               |
| <b>Purity</b>              | > 98% by SDS-PAGE and HPLC analysis.                                                                                                                                                                                                                                                                                          |
| <b>Endotoxin Level</b>     | < 0.1 ng/μg of IL-7.                                                                                                                                                                                                                                                                                                          |
| <b>Stabilizer</b>          | None.                                                                                                                                                                                                                                                                                                                         |
| <b>Formulation</b>         | Lyophilized.                                                                                                                                                                                                                                                                                                                  |
| <b>Biological Activity</b> | The ED <sub>50</sub> was determined by the dose-dependent stimulation of the proliferation of murine 2E8 cells is < 2.0 ng/ml, corresponding to a specific activity of > 5 x 10 <sup>6</sup> units/mg.                                                                                                                        |

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**Stability**

The lyophilized protein is stable for at least 2 years from date of receipt at -20°C. Reconstituted IL-7 is stable for at least 3 months when stored in working aliquots with a carrier protein at -20°C. Avoid repeated freeze-thaw cycles.

**GENE INFORMATION**

|                            |                                                                                                |
|----------------------------|------------------------------------------------------------------------------------------------|
| <b>Gene Name</b>           | IL7 interleukin 7 [ Rattus norvegicus ]                                                        |
| <b>Synonyms</b>            | interleukin 7; IL7                                                                             |
| <b>Gene ID</b>             | 25647                                                                                          |
| <b>mRNA Refseq</b>         | NM_013110                                                                                      |
| <b>Protein Refseq</b>      | NP_037242                                                                                      |
| <b>UniProt ID</b>          | P56478                                                                                         |
| <b>Chromosome Location</b> | 2q23                                                                                           |
| <b>Pathway</b>             | Cytokine-cytokine receptor interaction; Hematopoietic cell lineage; Jak-STAT signaling pathway |
| <b>Function</b>            | interleukin-7 receptor binding; cytokine activity; growth factor activity; protein binding     |

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