

## Recombinant Rat Interleukin-7 (Rat IL-7)

### Product Information

Product Name	Cat#	Size
	90172ES10	10 µg
Recombinant Rat Interleukin-7 (Rat IL-7)	90172ES60	100 µg
	90172ES76	500 µg

### Product Description

Interleukin-7 (IL-7) is required for the development and survival of T cells and plays a critical role in modulating T-cell homeostasis. IL-7 is a limiting resource under normal conditions, but it accumulates during lymphopaenia, leading to increased T cell proliferation. Human IL-7 shares approximately 60-63% aa sequence identity with mouse, rat, canine and feline IL-7, and 72-76% with equine, bovine, ovine, porcine, feline and canine IL-7. IL-7 as an immunotherapy agent has been examined in many human clinical trials for various malignancies and during HIV infection. Furthermore, IL-7 induces the arming of effector functions and enhances the sensitivity of MAIT cells.

### Product Properties

<b>Synonyms</b>	Interleukin-7, IL-7, LP-1, pre-B cell factor
<b>Accession</b>	P56478
<b>GeneID</b>	25647
<b>Source</b>	E.coli-derived rat IL-7 protein, Asp26-Ile154.
<b>Molecular Weight</b>	Approximately 14.9 kDa
<b>AA Sequence</b>	DCHIKDKDGK AFGSVLMISI NQLDKMTGTD SDCPNNEPNF FKKHLCDDTK EAAFLNRAAR KLRQFLKMNI SEEFNDHLLR VSDGTQTLVN CTSKEEKTIK EQKKNPCFL KRLLEIKTC WNKILKGS
<b>Tag</b>	None
<b>Physical Appearance</b>	Sterile Filtered White lyophilized (freeze-dried) powder.
<b>Purity</b>	> 95% by SDS-PAGE and HPLC analyses.
<b>Biological Activity</b>	The ED <sub>50</sub> as determined by a cell proliferation assay using murine 2E8 cells is less than 2.0 ng/mL, corresponding to a specific activity of > 5.0 × 10 <sup>5</sup> IU/mg. Fully biologically active when compared to standard.
<b>Endotoxin</b>	< 1.0 EU per 1µg of the protein by the LAL method.
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered concentrated solution in PBS, pH 7.4. We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom.
<b>Reconstitution</b>	Reconstitute in sterile distilled water or aqueous buffer containing 0.1% BSA to a concentration of 0.1-1.0 mg/mL. Stock solutions should be apportioned into working aliquots and stored at ≤ -20°C. Further dilutions should be made in appropriate buffered solutions.

### Shipping and Storage

The products are shipped with ice pack and can be stored at -20°C to -80°C for 1 year.

Recommend to aliquot the protein into smaller quantities when first used and avoid repeated freeze-thaw cycles.

### Cautions

1. Avoid repeated freeze-thaw cycles.
2. For your safety and health, please wear lab coats and disposable gloves for operation.
3. For research use only!