Datasheet

Cat. No. P1024

IL-7, human recombinant

Information

Gene ID	3574
Accession #	P13232
Alternate Names	LP-1, pre-B cell factor
Source	*Escherichia coli.*
M.Wt	Approximately 17.4 kDa, a single non-glycosylated polypeptide chain containing 152 amino acids.
AA Sequence	DCDIEGKDGK QYESVLMVSI DQLLDSMKEI GSNCLNNEFN FFKRHICDAN KEGMFLFRAA RKLRQFLKMN STGDFDLHLL KVSEGTTILL NCTGQVKGRK PAALGEAQPT KSLEENKSLK EQKKLNDLCF LKRLLQEIKT CWNKILMGTK EH
Purity	> 97% by SDS-PAGE and HPLC analyses.
Appearance	Sterile Filtered White lyophilized (freeze-dried) powder.
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. - 3 years from date of receipt, -20 to -70 °C as supplied. - 1 month, 2 to 8 °C under sterile conditions after reconstitution. - 3 months, -20 to -70 °C under sterile conditions after reconstitution.
Formulation	Lyophilized from a 0.2 μm filtered concentrated solution in PBS, pH 7.4.
Reconstitution	We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. 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.
Biological Activity	Fully biologically active when compared to standard. rHuIL-7 stimulates proliferation of PHA-activated human peripheral blood mononuclear cell (PBMC). The specific activity of Recombinant Human IL-7 is ≥1.0×10^8 IU/mg, which is calibrated against human IL-7 WHO Standard (NIBSC code: 90/530).
Shipping Condition	Gel pack.
Handling	Centrifuge the vial prior to opening.
Usage	For Research Use Only! Not to be used in humans.

Components and Storage

Components	10 μg	100 μg	500 μg
IL-7, human recombinant	10 μg	100 μg	500 μg

Use a manual defrost freezer and avoid repeated freeze-thaw cycles.
- 12 months from date of receipt, -20 to -70 °C as supplied.
- 1 month, 2 to 8 °C under sterile conditions after reconstitution.
- 3 months, -20 to -70 °C under sterile conditions after reconstitution.

Quality Control

Purity	> 97 % by SDS-PAGE and HPLC analyses.
Endotoxin	Less than 1 EU/μg of rHuIL-7 as determined by LAL method.

Description

Interleukin-7 (IL-7) is encoded by the IL7 gene and secreted by stromal cells in the red marrow and thymus. It binds to the IL-7 receptor, a heterodimer consisting of IL-7 receptor alpha and IL-2 receptor gamma chain. IL-7 stimulates the differentiation of hematopoietic stem cells into lymphoid progenitor cells and also stimulates proliferation of B cells, T cells and NK cells. Murine IL-7 has approximately 65 % amino acid sequence identity with human IL-7 and both proteins exhibit cross-speciesactivity. IL-7 as an immunotherapy agent has been examinedin many human clinical trials for various malignancies and during HIV infection.

Reference

1. Goodwin RG, Lupton S, Schmierer A, et al. 1989. Proc Natl Acad Sci U S A. 86:302-6.

2. Sutherland GR, Baker E, Fernandez KE, et al. 1989. Hum Genet. 82:371-2.

3. Lupton SD, Gimpel S, Jerzy R, et al. 1990. J Immunol. 144:3592-601.

4. Noguchi M, Nakamura Y, Russell SM, et al. 1993. Science. 262:1877-80.

5. Fry TJ, Mackall CL. 2002. Blood. 99:3892-904.

6. Fry TJ, Mackall CL. 2002. J Hematother Stem Cell Res. 11:803-7.

APExBIO Technology
www.apexbt.com
7505 Fannin street, Suite 410, Houston, TX 77054.
Tel: +1-832-696-8203 | Fax: +1-832-641-3177 | Email: info@apexbt.com