Recombinant Human IL-7 Protein

Catalog No.: RP01707

Sequence Information

Species
Human

Gene ID
3574

Swiss Prot
P13232-1

Tags
No-tag

Synonyms
IL-7,Interleukin-7;IL7

Product Information

Source
HEK293 cells

Purification
≥ 90 % as determined by SDS-PAGE.

Calculated MWObserved MW

Endotoxin
< 0.1 EU/μg of the protein by LAL method.

Formulation
Lyophilized from a 0.22 μm filtered solution of PBS, pH 7.4.

Reconstitution
Centrifuge the vial before opening. Reconstitute to a concentration of 0.1-0.5 mg/mL in sterile distilled water. Avoid vortex or vigorously pipetting the protein. For long term storage, it is recommended to add a carrier protein or stablizer (e.g. 0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose), and aliquot the reconstituted protein solution to minimize free-thaw cycles.

Background

IL7, also known as interleukin 7, is a hematopoietic growth factor that belongs to the IL-7/IL-9 family. It is secreted by stromal cells in the bone marrow and thymus. IL7 stimulates the proliferation of lymphoid progenitors. It is important for proliferation during certain stages of B-cell maturation. IL7 and the hepatocyte growth factor (HGF) form a heterodimer that functions as a pre-pro-B cell growth-stimulating factor. It is found to be a cofactor for V (D)J rearrangement of the T cell receptor beta (TCR?) during early T cell development. IL7 can be produced locally by intestinal epithelial and epithelial goblet cells and may serve as a regulatory factor for intestinal mucosal lymphocytes.

Basic Information

Description
Recombinant Human IL-7 Protein is produced by HEK293 cells expression system. The target protein is expressed with sequence (Asp26-His177) of human IL-7 (Accession #NP_000871.1) fused with no additional amino acid.

Activity
1.Measured in a cell proliferation assay using IL-2(Catalog: RP01384)-activated mouse spleen cell. The ED_{50} for this effect is 13-53 pg/mL, corresponding to a specific activity of 1.89×10^{7}~7.69×10^{7} units/mg.
2.Measured in a cell proliferation assay using murine 2E8 cells. The ED_{50} for this effect is 2.2-8.7ng /mL, corresponding to a specific activity of 1.15×10^{5}~4.54×10^{6} units/mg.

Shipping
Lyophilized proteins are shipped at ambient temperature.
Liquid proteins are shipped at frozen temperature with dry ice.
Upon receipt, store it immediately at the temperature recommended below.

Storage
Store at -20℃

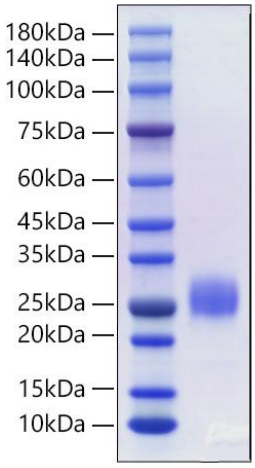
Operational Notes
For your safety and health, please wear a lab coat and disposable gloves for handling.

Contact

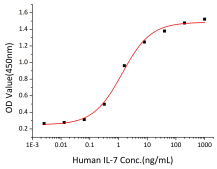
400-999-6126
cn.market@abclonal.com.cn
www.abclonal.com.cn

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Validation Data



Recombinant Human IL-7 Protein was determined by SDS-PAGE under reducing conditions with Coomassie Blue.



Measured in a cell proliferation assay using murine 2E8 cells. The ED_{50} for this effect is 0.67-2.68 ng/mL, corresponding to a specific activity of 3.7×10^{5}~1.49×10^{6} units /mg.