

Recombinant Mouse IL-7 Protein

Catalog No.: RP01766 **Recombinant**

Sequence Information

Species Mouse **Gene ID** 16196 **Swiss Prot** P10168

Tags

C-6His

Synonyms

IL-7; hlb368; A630026I06Rik; il7

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 Mouse IL-7 Protein is produced by HEK293 cells expression system. The target protein is expressed with sequence (Glu26-Ile154) of mouse IL-7 (Accession #NP_032397.1) fused with a 6xHis tag at the C-terminus.

Bio-Activity

Measured in a cell proliferation assay using murine 2E8 cells. The ED₅₀ for this effect is 1.1-4.2 ng/mL, corresponding to a specific activity of 2.38×10⁵~9.1×10⁵ units/mg.

Shipping

The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.

Storage

Store at -20°C. Store the lyophilized protein at -20°C to -80 °C up to 1 year from the date of receipt.

After reconstitution, the protein solution is stable at -20°C for 3 months, at 2-8°C for up to 1 week.

Avoid repeated freeze/thaw cycles.

Operational Notes

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

Product Information

Source

HEK293 cells

Purification

≥ 90 % as determined by SDS-PAGE.

Calculated MW Observed MW

15.74 kDa 20-30 kDa

Endotoxin

< 0.01 EU/μg of the protein by LAL method

Formulation

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

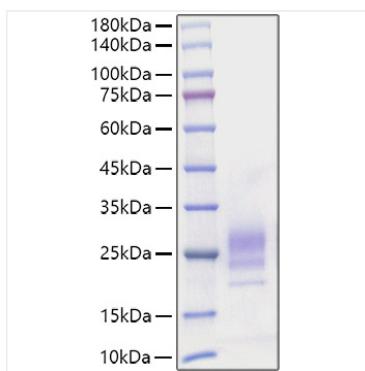
Reconstitution

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 stabilizer (e.g. 0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose), and aliquot the reconstituted protein solution to minimize free-thaw cycles.

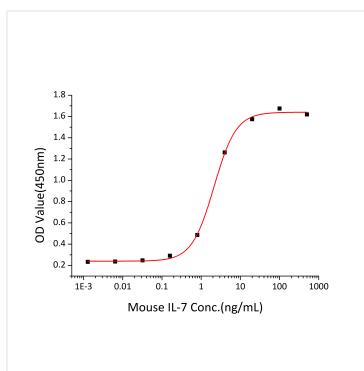
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Validation Data



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



Recombinant Mouse IL-7 stimulates cell proliferation of the murine 2E8 cells. The ED₅₀ for this effect is 1.1-4.2 ng/mL, corresponding to a specific activity of $2.38 \times 10^5 \sim 9.1 \times 10^5$ units/mg.