

Bioactive

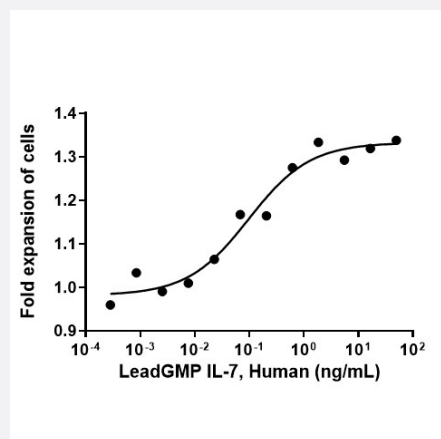
GMP Grade

IL7 (Human) Recombinant Protein

Catalog # P6997

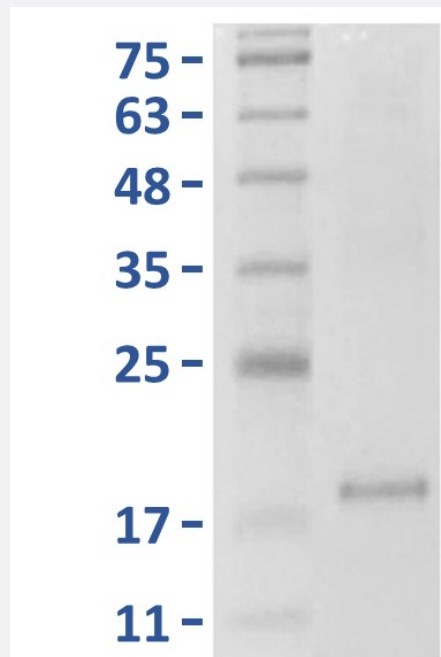
Size 100 ug

Applications



Functional Study

The ED₅₀ for this effect is <0.8 ng/mL, measured in a cell proliferation assay using PHAactivated human peripheral blood lymphocytes (PBMC).



Specification

Product Description	Human IL7 recombinant protein with His tag expressed in <i>Escherichia coli</i> .
Host	<i>Escherichia coli</i>
Theoretical MW (kDa)	Calculated MW: 18.3
Form	Lyophilized
Preparation Method	<i>Escherichia coli</i> expression system
Purification	Ni-NTA chromatography
Purity	> 97% by SDS-PAGE
Endotoxin Level	< 0.05 EU/ug
Activity	The ED ₅₀ for this effect is < 0.8 ng/mL, measured by the induction of PHA-activated human PBMCs proliferation. The specific activity of recombinant human IL-7 is > 1 x 10 ⁸ units/mg.
Quality Control Testing	SDS-PAGE Stained with Coomassie Blue
Recommend Usage	SDS-PAGE The optimal working dilution should be determined by the end user.
Regulatory Status	GMP grade
Storage Buffer	Lyophilized from PBS, pH 8.0. Reconstitute the lyophilized protein in sterile H ₂ O to a concentration of at least 0.5 mg/mL and incubate the stock solution for at least 20 min to ensure sufficient redissolution. Please use the protein within one month after reconstitution.
Storage Instruction	Store at -20°C for 12 months in lyophilized state. After reconstitution with deionized water, store at -20 or -80°C for 1 month. Aliquot to avoid repeated freezing and thawing.

Applications

- Functional Study

The ED₅₀ for this effect is <0.8 ng/mL, measured in a cell proliferation assay using PHAactivated human peripheral blood lymphocytes (PBMC).

- SDS-PAGE

Gene Info — IL7

Entrez GeneID [3574](#)

Gene Name IL7

Gene Alias IL-7

Gene Description interleukin 7

Omim ID [146660](#)

Gene Ontology [Hyperlink](#)

Gene Summary

The protein encoded by this gene is a cytokine important for B and T cell development. This cytokine and the hepatocyte growth factor (HGF) form a heterodimer that functions as a pre-pro-B cell growth-stimulating factor. This cytokine is found to be a cofactor for V(D)J rearrangement of the T cell receptor beta (TCRB) during early T cell development. This cytokine can be produced locally by intestinal epithelial and epithelial goblet cells, and may serve as a regulatory factor for intestinal mucosal lymphocytes. Knockout studies in mice suggested that this cytokine plays an essential role in lymphoid cell survival. [provided by RefSeq]

Other Designations IL7 nirs variant 6

Pathway

- [Cytokine-cytokine receptor interaction](#)
- [Hematopoietic cell lineage](#)
- [Jak-STAT signaling pathway](#)

Disease

- [Asthma](#)
- [Bronchiolitis](#)
- [Cardiovascular Diseases](#)
- [Celiac Disease](#)
- [Diabetes Mellitus](#)

- [Edema](#)
- [Genetic Predisposition to Disease](#)
- [Infant](#)
- [Multiple Sclerosis](#)
- [Respiratory Syncytial Virus Infections](#)