

Active GMP Recombinant Human IL7 Protein

Cat. No. IL7-01HG Lot. No. (See product label)

SPECIFICATION

Product Overview	Recombinant human IL7 protein, was expressed in CHO-K1 cell-derived in an animal component free process under cGMP guidelines.
Species	Human
Source	CHO
Description	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. IL7 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. IL7 plays an essential role in lymphoid cell survival, and in the maintenance of naive and memory T cells. Alternative splicing results in multiple transcript variants encoding distinct isoforms. Additional splice variants have been described but their presence in normal tissues has not been confirmed. Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) infection can be a potent inducer of proinflammatory cytokines and chemokines which may defend against the infection, but may also mediate destructive lung injury. Elevated serum IL7 levels, together with several other circulating cytokines and chemokines, has been found to be associated with the severity of Coronavirus Disease 19 (COVID-19).
Form	Lyophilized powder

 Tel: 1-631-559-9269 1-516-512-3133

 Email: info@creative-biomart.com  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

Endotoxin	<20 EU/mg
Bio-activity	>2.0 x 10 ⁶ IU/mg
Purity	>95.0% by high performance liquid chromatography (SEC-HPLC) and SDS-PAGE.
Storage Buffer	10mM Phosphate-Buffered Saline (pH 7.2)
Storage	Stable storage at 4°C for 7-10 days; for long-term storage, please store at -20°C after dispensing.
Sterility	Sterility
Instructions	It is recommended that lyophilized GMP rhIL7 be dissolved in water for injection or sterilized ultrapure water at a concentration of not less than 100 µg/ml, pending further dilution to working concentration.

GENE INFORMATION

Gene Name	IL7 interleukin 7 [Homo sapiens (human)]
Official Symbol	IL7
Synonyms	IL-7
Gene ID	3574
mRNA Refseq	NM_000880.4
Protein Refseq	NP_000871.1

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UniProt ID	P13232
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MIM	146660
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