

# Active Recombinant Human Interleukin 7, HIgG1 Fc-tagged, mutant

Cat. No. IL7-53H Lot. No. (See product label)

## SPECIFICATION

### Product Overview

The extracellular domain of human IL-7 (AAH47698.1)(Asp26-His177) is fused to the N-terminus of the Fc region of a mutant human IgG1 was expressed in CHO cell

### Species

Human

### Source

CHO

### ProteinLength

26-177 a.a.

### 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. 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. 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.

### Form

Lyophilized from 0.2µm-filtered solution in PBS.

### Bio-activity

Hematopoietic growth factor capable of stimulating the proliferation of lymphoid progenitors. It is important for proliferation during certain stages of B-cell maturation.

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<b>Molecular Mass</b>	43KDa (monomer)
<b>AA Sequence</b>	Asp26-His177
<b>Endotoxin</b>	<0.06 eu/μg="" as="" determined="" by="" lal="" test="">
<b>Purity</b>	>98%, by SDS-PAGE under reducing conditions.
<b>Stability</b>	Stable for at least 1 year after receipt when stored at -20°C. Working aliquots are stable for up to 3 months when stored at -20°C.
<b>Reconstitution</b>	Reconstitute at 100μg/ml in sterile PBS.
<b>Warning</b>	Avoid freeze/thaw cycles.

## GENE INFORMATION

<b>Gene Name</b>	IL7 interleukin 7 [ Homo sapiens ]
<b>Official Symbol</b>	IL7
<b>Synonyms</b>	IL7; interleukin 7; interleukin-7; IL 7; IL-7;
<b>Gene ID</b>	3574
<b>mRNA Refseq</b>	NM_000880
<b>Protein Refseq</b>	NP_000871
<b>MIM</b>	146660

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<b>UniProt ID</b>	P13232
<b>Chromosome Location</b>	8q12-q13
<b>Pathway</b>	Cytokine Signaling in Immune system, organism-specific biosystem; Cytokine-cytokine receptor interaction, organism-specific biosystem; Cytokine-cytokine receptor interaction, conserved biosystem; Hematopoietic cell lineage, organism-specific biosystem; Hematopoietic cell lineage, conserved biosystem; Immune System, organism-specific biosystem; Interleukin-7 signaling, organism-specific biosystem;
<b>Function</b>	cytokine activity; cytokine receptor binding; growth factor activity; growth factor activity; interleukin-7 receptor binding; protein binding;

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