

## Recombinant Human Interleukin 7, HQ-tagged

**Cat. No.** IL7-5333H    **Lot. No.** (See product label)

### SPECIFICATION

<b>Product Overview</b>	Recombinanthuman IL7 contains 153 amino acids and a 16 aa HQ tag. Total length is 169aa.
<b>Species</b>	Human
<b>Source</b>	Hordeum Vulgare
<b>Description</b>	IL7 stimulates the differentiation of multipotent hematopoietic stem cells into lymphoid progenitor cells (as opposed to myeloid progenitor cells where differentiation is stimulated by IL-3). It also stimulates proliferation of all cells in the lymphoid lineage (B cells, T cells and NK cells). It is important for proliferation during certain stages of B-cell maturation, T and NK cells survival, development and homeostasis.
<b>Form</b>	Lyophilized from a 0.2 µm sterile filtered solution of PBS, pH 7.2.
<b>Molecular Weight</b>	Predicted MW = 19.7kDa including HQ tag. As a result of glycosylation, the recombinant protein migrates as two bands with an apparent MW = 19 and 21 kDa in SDS-PAGE.
<b>Purity</b>	>95% by SDS-PAGE. Purified product carries no pyrogenic or pro-inflammatory contaminants, as assayed with monocyte activation test using custom human Multiplex Cytokine Assay measuring IL-6, TNF-alpha and IL-1beta induction.
<b>Endotoxin Level</b>	< 0.005 ng per µg of product (0.05 EU/g) as measured by turbidimetric kinetic assay.

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<b>Biological Activity</b>	The bioactivity of human IL7 was determined by dose-dependent cell proliferation assay on human bone marrow mononuclear cells, measuring intracellular ATP concentration with standardized luminometry. EC50 for a typical batch lies in the range of 48-72 ng/ml.
<b>Reconstitution</b>	Centrifuge vial prior to opening. First add sterile distilled water to the vial to fully solubilize the protein to a concentration not less than 100 µg/ml. After complete solubilization of the protein, it can be further diluted to other aqueous solutions.
<b>Storage</b>	The lyophilized protein, though stable at room temperature for few weeks, is best stored at -20°C to -80°C. Reconstituted protein should be used immediately or stored in working aliquots at -20°C to -80°C. Avoid repeated freeze-thaw cycles.
<b>Official Symbol</b>	IL7

## GENE INFORMATION

<b>Gene Name</b>	IL7 interleukin 7 [ <i>Homo sapiens</i> ]
<b>Synonyms</b>	IL7; interleukin 7; IL-7; interleukin-7; OTTHUMP00000227044; OTTHUMP00000227046
<b>Gene ID</b>	3574
<b>mRNA Refseq</b>	NM_000880
<b>Protein Refseq</b>	NP_000871
<b>MIM</b>	146660
<b>UniProt ID</b>	P13232

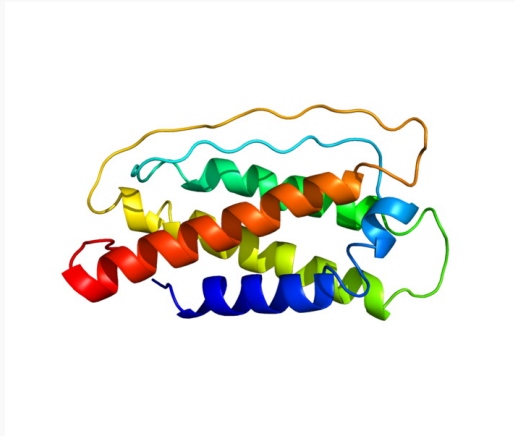
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<b>Chromosome Location</b>	8q12-q13
<b>Pathway</b>	Cytokine-cytokinereceptor interaction; Hematopoietic cell lineage; Jak-STAT signaling pathway
<b>Function</b>	cytokine activity;cytokine receptor binding; growth factor activity; interleukin-7 receptorbinding; protein binding

Rendering based onPDB 1IL7.



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