

## Recombinant Human Interleukin 9, HQ-tagged

**Cat. No.** IL9-5342H    **Lot. No.** (See product label)

### SPECIFICATION

<b>Product Overview</b>	Recombinant humanIL9 contains 127 amino acids and a 16 aa HQ tag. Total length is 143 aa.
<b>Species</b>	Human
<b>Source</b>	Hordeum Vulgare
<b>Description</b>	Interleukin 9, also known as IL9, is a cytokine (cell signalling molecule) belonging to the group of interleukins. The protein encoded by this gene is a cytokine produced by T-cells and specifically by CD4+ helper cells that acts as a regulator of a variety of hematopoietic cells. This cytokine stimulates cell proliferation and prevents apoptosis. It functions through the interleukin-9 receptor (IL9R), which activates different signal transducer and activator (STAT) proteins and thus connects this cytokine to various biological processes. The gene encoding this cytokine has been identified as a candidate gene for asthma.
<b>Form</b>	Lyophilized from a 0.2 ml sterile filtered solution of PBS, pH 7.2.
<b>Molecular Weight</b>	Predicted MW 16.2 kDa. The glycosylated recombinant protein migrates as 3 bands with an apparent MW 20, 22 and 24 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.

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<b>Endotoxin Level</b>	< 0.005 ng perg of product (0.05 EU/g) as measured by turbidimetric kinetic assay.
<b>Biological Activity</b>	Bioactivity is assayed by measuring the dosedependent effect of human IL9 on proliferation of mouse TS1h9RA3 cell line,transfected with human IL9 receptor. The ED50 for a typical batch of recombinanthuman IL9, is 0.1 ng/ml.
<b>Reconstitution</b>	Centrifuge vial prior to opening. First add steriledistilled water to the vial to fully solubilize the protein to aconcentration not less than 100 g/ml. After complete solubilization of theprotein, it can be further diluted to other aqueous solutions.
<b>Storage</b>	The lyophilizedprotein, though stable at room temperature for two weeks, is best stored at-20°C. Reconstituted protein should be used immediately or stored in workingaliquots at -20°C. Avoid repeated freeze-thaw cycles.
<b>OfficialSymbol</b>	IL9

## GENE INFORMATION

<b>Gene Name</b>	IL9 interleukin 9 [ Homosapiens ]
<b>Synonyms</b>	IL9; interleukin 9;P40; HP40; IL-9; interleukin-9; Cytokine P40; cytokine P40; p40 cytokine; OTTHUMP00000159423;T-cell growth factor p40; p40 T-cell and mast cell growth factor; homolog ofmouse T cell and mast cell growth factor 40
<b>Gene ID</b>	3578
<b>mRNA Refseq</b>	NM_000590
<b>Protein Refseq</b>	NP_000581
<b>MIM</b>	146931

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<b>UniProt ID</b>	P15248
<b>Chromosome Location</b>	5q31.1
<b>Pathway</b>	Asthma;Cytokine-cytokine receptor interaction; IL-9 Signaling Pathway; Jak-STATsignaling pathway
<b>Function</b>	cytokine activity;growth factor activity; interleukin-9 receptor binding

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