

Active Recombinant Human IL9,His-tagged

Cat. No. IL9-8866H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human IL9 was produced in the endosperm tissue of barley grain (<i>Hordeum vulgare</i>).
Species	Human
Source	Hordeum Vulgare
Description	IL-9 is a cytokine with immunoregulatory function, produced by activated T-helper type 2 lymphocytes. It acts on various cell types such as T- and B-lymphocytes, mast cells, haemopoietic progenitors and megakaryoblastic leukemia cell lines. IL-9 stimulates cell proliferation and prevents apoptosis. IL-9 may play a role in the pathogenesis of diseases such as certain lymphomas (Hodgkin's disease, anaplastic lymphoma) and asthma.
Predicted N Terminal	His
Form	Sterile filtered through a 0.2 µm filter. Lyophilized from PBS
Bio-activity	Bioactivity is assayed by measuring the dose dependent effect of human IL-9 on proliferation of murine TS1h9RA3 cell line, transfected with human IL-9 receptor (Renauld & Van Snick, Curr. Prot. in Immunol.2002). The ED50 of recombinant human IL-9 is 120 pg/ml.
Molecular Mass	Recombinant human IL-9 contains 127 amino acids and a 16 a.a. histidine-based tag for a total length of 143 a.a. and has a predicted molecular mass of 16.2 kDa

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	including his-tag. As a result of glycosylation, the recombinant protein migrates as 3 bands with an apparent molecular mass of 20, 22 and 24 kDa in SDS-PAGE.
Endotoxin	Endotoxin level is less than 0.05EU/μg as measured by turbidimetric kinetic assay.
Purity	>95% by SDS-PAGE gel analysis.
Storage	The lyophilized protein is stable at room temperature for few weeks. Reconstituted protein should be used immediately or stored in working aliquots at -20°C. Avoid repeated freeze-thaw cycles.
Reconstitution	It is recommended to reconstitute the lyophilized protein in sterile water to a concentration of no less than 100 μg/ml. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA).

GENE INFORMATION

Gene Name	IL9 interleukin 9 [Homo sapiens]
Official Symbol	IL9
Synonyms	IL9; interleukin 9; interleukin-9; homolog of mouse T cell and mast cell growth factor 40; HP40; IL 9; P40; p40 cytokine; p40 T cell and mast cell growth factor; T cell growth factor p40; cytokine P40; T-cell growth factor p40; p40 T-cell and mast cell growth factor; IL-9;
Gene ID	3578
mRNA Refseq	NM_000590
Protein Refseq	NP_000581

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MIM	146931
UniProt ID	P15248
Chromosome Location	5q31-q35
Pathway	Asthma, organism-specific biosystem; Asthma, conserved biosystem; Cytokine-cytokine receptor interaction, organism-specific biosystem; Cytokine-cytokine receptor interaction, conserved biosystem; IL-9 Signaling Pathway, organism-specific biosystem; Jak-STAT signaling pathway, organism-specific biosystem; Jak-STAT signaling pathway, conserved biosystem;
Function	cytokine activity; growth factor activity; interleukin-9 receptor binding;

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