Recombinant Human Interleukin 9, HQ-tagged

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

SPECIFICATION

Product Overview	Recombinant humanIL9 contains 127 amino acids and a 16 aa HQ tag. Total length is 143 aa.
Species	Human
Source	Hordeum Vulgare
Description	Interleukin 9, alsoknown as IL9, is a cytokine (cell signalling molecule) belonging to the groupof interleukins. The protein encoded by this gene is a cytokine produced byT-cells and specifically by CD4+ helper cells that acts as a regulator of avariety of hematopoietic cells. This cytokine stimulates cell proliferationand 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. Thegene encoding this cytokine has been identified as a candidate gene forasthma.
Form	Lyophilized from a0.2 μm sterile filtered solution of PBS, pH 7.2.
Molecular Weight	Predicted MW 16.2kDa. The glycosylated recombinant protein migrates as 3 bands with anapparent MW 20, 22 and 24 kDa in SDS-PAGE.
Purity	>95% by SDS-PAGE.Purified product carries no pyrogenic or pro-inflammatory contaminants, asassayed with monocyte activation test using custom human Multiplex CytokineAssay measuring IL-6, TNF-alpha and IL-1beta induction.

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Endotoxin Level	< 0.005 ng perg of product (0.05 EU/g) as measured by turbidimetric kinetic assay.
Biological Activity	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.
Reconstitution	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.
Storage	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.
OfficialSymbol	IL9

GENE INFORMATION

Gene Name	IL9 interleukin 9 [Homosapiens]
Synonyms	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
Gene ID	3578
mRNA Refseq	NM_000590
Protein Refseq	NP_000581
MIM	146931

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

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