

Active Recombinant Human Interleukin 9

Cat. No. IL9-476H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human IL-9 produced in E.coli is a single, non-glycosylated single polypeptide chain containing 127 amino acids and having a molecular mass of 14,004 Daltons.
Species	Human
Source	E.coli
Description	Interleukin (IL-9) is known to regulate many cell types involved in T-helper type 2 responses classically associated with asthma, including B- and T-lymphocytes, mast cells, eosinophils and epithelial cells. Growing evidence obtained from human genomic analysis and antigen-challenged transgenic mice suggests that IL-9 is a candidate factor in immunoglobulin E (IgE) production and thus is thought to be associated with bronchial inflammation and bronchial hyperresponsiveness (BHR).
Form	Lyophilized from 10 mM NaP, pH 7.5.
Purity	Purity Greater than 98% as determined by: Analysis by RP-HPLC. Reducing and non-reducing SDS-PAGE.
Bio-activity	IL-9 is fully biologically active when compared to a standard. The ED50 as determined by the dose-dependent proliferation of human MO7e cells is < 0.5 ng/ml.
Physical Appearance	Sterile Filtered white lyophilized (freeze-dried) powder.

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Solubility	Centrifuge vial before opening. When reconstituting the product, gently pipet and wash down the sides of the vial to ensure full recovery of the protein into solution. It is recommended to reconstitute the lyophilized product with sterile water at a concentration of 0.1 mg/μl, which can be further diluted into other aqueous solutions.
Purity Greater than 98% as determined by	Analysis by RP-HPLC. Reducing and non-reducing SDS-PAGE.
Protein Content determined by	UV spectroscopy at 280 nm. Analysis by RP-HPLC calibrated against a known standard. Quantitation on SDS-PAGE against a known standard.
Endotoxin Level	Endotoxin level is <0.01ng/ug or <0.1EU/ug.
Amino acid sequence	MQGCPTLAGI LDINFLINKM QEDPASKCHC SANVTSCCLCL GIPSDNCTRP CFSERLSQMT NTTMQTRYPL IFSRVKKSVE VLKNNKCPYF SCEQPCNQTT AGNALTFLKS LLEIFQKEKM RGMGRGI
Storage	Lyophilized product is very stable at -20 degrees. Reconstituted material should be aliquoted and frozen at -20. It is recommended to add a carrier protein (0.1% HSA or BSA) for long term storage.
Pathways	Asthma; Cytokine-cytokine receptor interaction; Jak-STAT signaling pathway

GENE INFORMATION

Gene Name	IL9 interleukin 9 [Homo sapiens]
Official Symbol	IL9

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Synonyms	IL9; interleukin 9; P40; HP40; IL-9; p40 T-cell and mast cell growth factor; T-cell growth factor p40; p40 cytokine; homolog of mouse T cell and mast cell growth factor 40; OTTHUMP00000159423
Gene ID	3578
mRNA Refseq	NM_000590
Protein Refseq	NP_000581
MIM	146931
UniProt ID	P15248
Chromosome Location	5q31.1
Function	cytokine activity; cytokine receptor binding; growth factor activity