

Recombinant Human IL-9

Information

Gene ID	3578
Accession #	P15248
Alternate Names	Interleukin-9, Cytokine P40, T-cell Growth Factor P40.
Source	<i>Escherichia coli</i> .
M.Wt	Approximately 14.1 kDa, a single non-glycosylated polypeptide chain containing 126 amino acids.
AA Sequence	QGCPTLAGIL DINFLINKMQ EDPASKCHCS ANVTSCCLCLG IPSDNCTRPC FSERLSQMTN TTMQTRYPLI FSRVKKSVEV LKNNKCPYFS CEQPCNQTTA GNALTFLKSL LEIFQKEKMR GMRGKI
Appearance	Sterile Filtered White lyophilized (freeze-dried) powder.
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. - 12 months from date of receipt, -20 to -70°C as supplied. - 1 month, 2 to 8°C under sterile conditions after reconstitution. - 3 months, -20 to -70°C under sterile conditions after reconstitution.
Formulation	Lyophilized from a 0.2 µm filtered concentrated solution in PBS, pH 7.4.
Reconstitution	We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in sterile distilled water or aqueous buffer containing 0.1% BSA to a concentration of 0.1-1.0 mg/mL. Stock solutions should be apportioned into working aliquots and stored at ≤ -20°C. Further dilutions should be made in appropriate buffered solutions.
Biological Activity	Fully biologically active when compared to standard. The ED ₅₀ as determined by a cell proliferation assay using human MO7e cells is less than 0.2 ng/ml, corresponding to a specific activity of >5.0 × 10 ⁶ IU/mg.
Shipping Condition	Gel pack.
Handling	Centrifuge the vial prior to opening.
Usage	For Research Use Only! Not to be used in humans.

Components and Storage

Components	10 µg	100 µg	500 µg
Recombinant Human IL-9	10 µg	100 µg	500 µg
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Quality Control

Purity	>95% by SDS-PAGE and HPLC analyses.
Endotoxin	Less than 1 EU/μg of rHuIL-9 as determined by LAL method.

Description

Interleukin-9 (IL-9) is encoded by the IL9 gene and produced by T-cells and specifically by CD4+ helper cells. IL-9 was originally identified as a cytokine found in the conditioned medium of a human T cell leukemia virus type I (HTLVI) transformed T cell line. It functions through the IL-9 receptor, which activates different signal transducer and activator (STAT) proteins and thus connects this cytokine to various biological processes. IL-9 can support the growth of IL-2 independent and IL-4 independent helper T-cells. Human IL-9 has approximately 56% amino acid sequence identity with murine IL-9. The gene encoding this cytokine has been identified as a candidate gene for asthma. Genetic studies on a mouse model of asthma demonstrated that this cytokine is a determining factor in the pathogenesis of bronchial hyper-responsiveness.

Reference

1. Renauld JC, Goethals A, Houssiau F, et al. 1990. J Immunol. 144:4235-41.
2. Kelleher K, Bean K, Clark SC, et al. 1991. Blood. 77:1436-41.

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