

Growth Factor Data Sheet

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Interleukin-9 (IL9) is encoded by the IL9 gene and is produced by T-cells and specifically by CD4+ helper cells. IL9 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. IL9 functions through the IL-9 receptor, which activates different signal transducer and activator (STAT) proteins and thus connects this pleiotropic cytokine to various biological processes. IL9 can support the growth of IL2 independent and IL4 independent helper T-cells. 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 hyperresponsiveness.

Catalog Number	1510-09
Product Name	IL9, Rat Recombinant Rat Interleukin 9 IL-9 T-cell/Mast Cell Growth Factor P40
Source	<i>Escherichia coli</i>
MW	~14.3 kDa (127 amino acids)
Sequence	MQRCSTSWG I QHTSYLIENL KDDPSSK CSC SANVT SCLCL PIP SDDCTTP CFQEGMSQVT NATQQSKFSP FFRVKRIVE TLKSNKCQFF SCEKPCNQTT AGNTVSFLKS LLKTFQKTEV QVQRSRA
Accession Number	D4A8I9
Purity	>97% by SDS-PAGE and HPLC analyses
Biological Activity	Fully biologically active when compared to standard. The ED ₅₀ as determined by a cell proliferation assay using murine TS1 cells is less than 10 ng/ml, corresponding to a specific activity of >1.0 × 10 ⁵ IU/mg.
Formulation	Sterile filtered white lyophilized powder. Purified and tested for use in cell culture.
Storage/Handling	This lyophilized preparation is stable at 2-8°C, but should be kept at -20°C for long term storage. The reconstituted sample can be apportioned into working aliquots and stored at -80 °C for up to 6 months. Avoid repeated freeze/thaw cycles.
Reconstitution	The sample should be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in a siliconized tube using PBS that contains a 0.1% BSA to a concentration of 0.1-1.0 mg/mL. Reconstituted solutions are stable for up to one week at 2-8°C. Stock solutions should be aliquoted and stored at -80°C. Further dilutions should be made in appropriate buffered solutions containing BSA or serum.