

## Mouse Interleukin-9 (IL-9) - Purified

<b>Catalog No.:</b>	PA1085XC
<b>Quantity:</b>	1 mg
<b>Concentration:</b>	1 mg/ml (lyophil.)
<b>Background:</b>	Factor that is thought to be a regulator of hematopoiesis. It has been shown to enhance the growth of human mast cells and megakaryoblastic leukemic cells as well as murine helper t-cell clones. IL-9 is a glycoprotein with a molecular weight of 32-39 that is derived from T-cells, and maps to human chromosome 5.
<b>Species:</b>	Mouse
<b>Source:</b>	E. coli
<b>Format:</b>	<b>State:</b> Lyophilized <b>Purity:</b> >98% Purified by proprietary chromatographic techniques, sterile filtered, purity > 98.0% as determined by: (a) Analysis by RP-HPLC. (b) Analysis by SDS-PAGE. <b>Reconstitution:</b> Sterile 18MΩ-cm H <sub>2</sub> O not less than 100 µg/ml, which can then be further diluted to other aqueous solutions.
<b>Description:</b>	Interleukin-9 Mouse Recombinant produced in E.Coli is a single, non-glycosylated single polypeptide chain containing 127 amino acids. <b>AA Sequence:</b> The sequence of the first five N-terminal amino acids was determined and was found to be Met-Gln-Arg-Cys-Ser. <b>Biological Activity:</b> The ED <sub>50</sub> as determined by the dose-dependant stimulation of human MO7e cells is < 0.5 ng/ml, corresponding to a specific Activity of 2 x 10 <sup>6</sup> IU/mg. <b>Molecular weight:</b> 14 kDa 14166 Dalton.
<b>Add. Information:</b>	Protein quantitation was carried out by two independent methods: 1. UV spectroscopy at 280 nm using the absorbency value of 0.6 as the extinction coefficient for a 0.1% (1mg/ml) solution. This value is calculated by the PC GENE computer analysis program of protein sequences (IntelliGenetics). 2. Analysis by RP-HPLC, using a standard solution of IL-9 as a Reference Standard.
<b>Storage:</b>	Lyophilized product is stable at room temperature for one month, should be stored desiccated below -20 °C. Upon reconstitution it should be stored at 2 - 8 °C up to one week and for future use below -20 °C. For long term storage it is recommended to add a carrier protein (0.1 % HSA or BSA). Avoid repeated freezing and thawing. Shelf life: one year from despatch.
<b>General Readings:</b>	1. Endo Y, Isono K, Kondo M, Tamaoki J, Nagai A. Interleukin-9 and Interleukin-13 augment UTP-induced Cl ion transport via hCLCA1 expression in a human bronchial epithelial cell line. Clin Exp Allergy. 2007 Feb;37(2):219-24. PubMed PMID: 17250694.

2. Qiu L, Lai R, Lin Q, Lau E, Thomazy DM, Calame D, et al. Autocrine release of interleukin-9 promotes Jak3-dependent survival of ALK+ anaplastic large-cell lymphoma cells. *Blood*. 2006 Oct 1;108(7):2407-15. Epub 2006 Jun 8. PubMed PMID: 16763206.
3. McNamara PS, Smyth RL. Interleukin-9 as a possible therapeutic target in both asthma and chronic obstructive airways disease. *Drug News Perspect*. 2005 Dec;18(10):615-21. PubMed PMID: 16491163.
4. Devos S, Cormont F, Vrtala S, Hooghe-Peters E, Pirson F, Snick J. Allergen-induced interleukin-9 production in vitro: correlation with atopy in human adults and comparison with interleukin-5 and interleukin-13. *Clin Exp Allergy*. 2006 Feb;36(2):174-82. PubMed PMID: 16433854.
5. Nagato T, Kobayashi H, Kishibe K, Takahara M, Ogino T, Ishii H, et al. Expression of interleukin-9 in nasal natural killer/T-cell lymphoma cell lines and patients. *Clin Cancer Res*. 2005 Dec 1;11(23):8250-7. PubMed PMID: 16322282.
6. Poulin LF, Habran C, Stordeur P, Goldman M, McKenzie A, Van Snick J, et al. Interleukin-9 stimulates the production of interleukin-5 in CD4+ T cells. *Eur Cytokine Netw*. 2005 Sep;16(3):233-9. PubMed PMID: 16266865.

**Pictures:**

Precursor- Protein structure and amino acid sequence

