

**BACKGROUND**

Interleukin 9 (IL-9) is cytokine produced by a subgroup of helper T cells, known as Th2 cells. IL-9 signals through its receptor IL-9R to induce cell proliferation and survival. Genetically, IL-9 has been identified as a gene associated with asthma.

Recombinant mouse IL-9 is a non-glycosylated protein, containing 127 amino acids and having a molecular mass of 14.3 kDa.

**Alternative Names:**

T-cell growth factor p40, P40 cytokine

**Amino Acid Sequence:**

MQRCSTTWGI RDTNYLIENL KDDPPSKCSC SGNVTSCLCL  
SVPTDDCTTP CYREGLLQLT NATQKSRLLP VFHRVKRIVE  
VLKNITCPSF SCEKPCNQTM AGNTMSFLKS LLGTFQKTEM  
QRQKSRP

**TECHNICAL INFORMATION**

**Source:** *E.coli*

**Physical Appearance:**

Sterile Filtered white lyophilized (freeze-dried) powder.

**Formulation:**

Recombinant mouse IL-9 is lyophilized from 10mM Na<sub>2</sub>PO<sub>4</sub>, pH 7.5.

**Stability:**

Lyophilized product is very stable at -20°C. Reconstituted material should be aliquoted and frozen at -20°C. It is recommended that a carrier protein (0.1% HSA or BSA) is added for long term storage.

**Reconstitution:**

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/ml, which can be further diluted into other aqueous solutions.

**Protein Content and Purity determined by:**

- UV spectroscopy at 280 nm
- RP-HPLC calibrated against a known standard
- Quantitation against a known standard via reducing and non-reducing SDS-PAGE gels.

**Endotoxin Level:**

Endotoxin level, as measured by LAL analysis, is <0.01ng/ug or <0.1EU/ug.

**Biological Activity:**

The activity is determined by the dose-dependent proliferation of mouse Mo7e cells and is typically less than 0.5 ng/ml.

*Products are for research use only. They are not intended for human, animal, or diagnostic applications.*

