

# Recombinant human IL-9 protein

Catalog Number: ATGP3912

## PRODUCT INFORMATION

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### Expression system

Baculovirus

### Domain

19-144aa

### UniProt No.

P15248

### NCBI Accession No.

NP\_000581

### Alternative Names

IL-9, Interleukin 9, Cytokine P40, T-cell growth factor P40, p40 T-cell and mast cell growth factor, Homolog of mouse T cell and mast cell growth factor 40, HP40, P40

## PRODUCT SPECIFICATION

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### Molecular Weight

14.9 kDa (132aa)

### Concentration

0.5mg/ml (determined by BCA assay)

### Formulation

Liquid in. Phosphate-Buffered Saline (pH 7.4) containing 10% glycerol

### Purity

> 85% by SDS-PAGE

### Endotoxin level

< 1 EU per 1ug of protein (determined by LAL method)

### Biological Activity

Measured in a cell proliferation assay using MO7e human megakaryocytic leukemic cells. The ED50 range  $\leq 0.3$ ng/ml.

### Tag

His-Tag

### Application

SDS-PAGE, Bioactivity

### Storage Condition

Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

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## BACKGROUND

### Description

IL-9, also known as interleukin 9, is a cytokine (cell signalling molecule) belonging to the group of interleukins. This protein produced by T-cells and specifically by CD4+ helper cells that acts as a regulator of a variety of hematopoietic cells and stimulates cell proliferation and prevents apoptosis. It functions through the interleukin-9 receptor (IL9R), which activates different signal transducer and activator (STAT) proteins and thus connects this cytokine to various biological processes. Recombinant human IL-9, fused to His-tag at C-terminus, was expressed in insect cell and purified by using conventional chromatography techniques.

### Amino acid Sequence

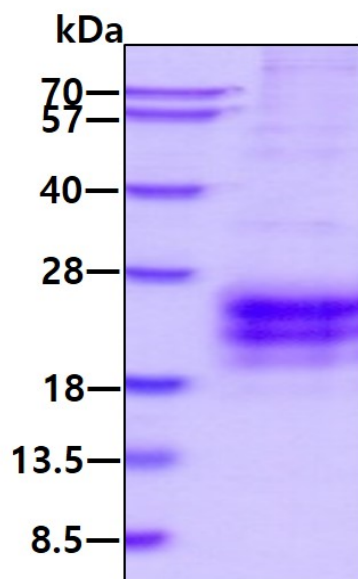
QGCPFLAGIL DINFLINKMQ EDPASKCHCS ANVTSLCLG IPSDNCTRPC FSERLSQMTN TTMQTRYPLI FSRVKKSVEV LKNNKCPYFS CEQPCNQTTA GNALTFLKSL LEIFQKEKMR GMRGKI<HHHH HH>

### General References

Purwar R, Schlapbach C, et al. (2012). Nat Med. 18(8):1248-53.  
Pilette C, Ouadrhiri Y, et al. (2002). J Immunol. 168(8):4103-11.

## DATA

### SDS-PAGE

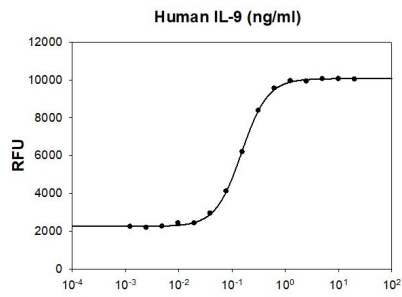


3ug by SDS-PAGE under reducing condition and visualized by coomassie blue stain.

### Biological Activity

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Human IL-9 stimulates cell proliferation of the MO7e human megakaryocytic leukemic cells. The ED50 range  $\leq 0.3$  ng/ml.