

Human IL-9 / Interleukin-9 Protein (His Tag)

Catalog Number: 11844-H08B



Sino Biological Inc.

Biological Solution Specialist

General Information

Gene Name Synonym:

HP40, IL-9, P40

Protein Construction:

A DNA sequence encoding the human IL9 (NP_000581.1) (Gln 19-Il4 144) was expressed and purified, fused with a polyhistidine tag at the C-terminus.

Source: Human

Expression Host: Baculovirus-Insect Cells

QC Testing

Purity: > 97 % as determined by SDS-PAGE

Bio-Activity

Measured in a cell proliferation assay using MO7e human megakaryocytic leukemic cells. The ED50 for this effect is typically 0.2-2 ng/ml.

Endotoxin:

< 1.0 EU per µg of the protein as determined by the LAL method

Stability:

Samples are stable for up to twelve months from date of receipt at -70 °C

Predicted N terminal: Gln 19

Molecular Mass:

The recombinant human IL9 consists of 136 amino acids and predicts a molecular mass of 15.5 kDa. rhIL9 migrates as multiple bands with the molecular mass of 18-25 kDa band in SDS-PAGE under reducing conditions due to different glycosylation.

Formulation:

Lyophilized from sterile 20mM Tris, 500mM NaCl, pH 7.4

Normally 5 % - 8 % trehalose and mannitol are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

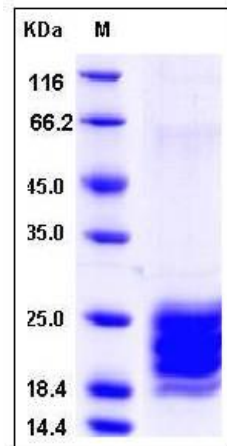
Usage Guide

Storage:

Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

SDS-PAGE:



Reconstitution:

Detailed reconstitution instructions are sent along with the products.

Protein Description

Interleukin-9, also known as Cytokine P40, T-cell growth factor P40, IL-9 and IL9, is a secreted protein which belongs to the IL-7 / IL-9 family. Interleukin-9 / IL-9 is a cytokine produced by T-cells and specifically by CD4+ helper cells that acts as a regulator of a variety of hematopoietic cells. Interleukin-9 / IL-9 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. It is a T (H)2 cell-derived cytokine that might be involved in the pathophysiology of allergic diseases. IL-9 is specifically upregulated after local allergen challenge in the lungs of atopic asthmatic patients. Lymphocytes are the major cellular source of IL-9. The increased expression and its correlation with eosinophil numbers suggest a potential role for IL-9 in the late phase of the allergic response.

References

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2. Lejeune D, et al., 2001, Biochem. J. 353 (Pt 1): 109-116.
3. Toda M, et al., 2002, J. Allergy Clin. Immunol. 109 (2): 246-50.
4. Erpenbeck, V.J. et al., 2003, J Allergy Clin Immunol. 111 (6): 1319-27.
5. Knoop L, et al., 2005, Growth Factors. 22 (4): 207-15.

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Fax :+86-10-51029969 • Tel:+86-400-890-9989 • <http://www.sinobiological.com>