

# PRODUCT INFORMATION



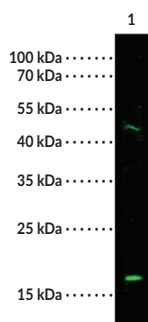
## Interleukin-9 Polyclonal Antibody

Item No. 33948

### Overview and Properties

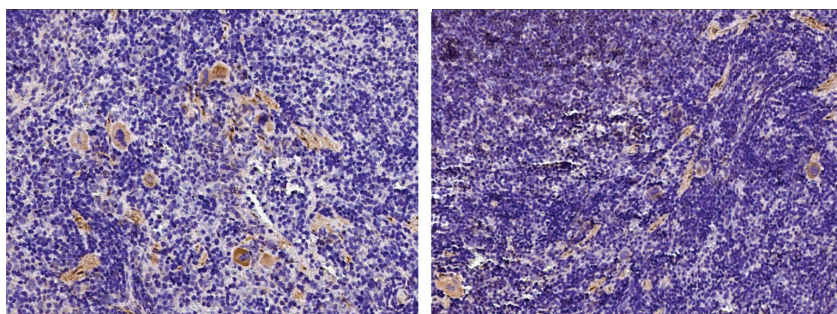
<b>Contents:</b>	This vial contains 200 µl of protein A and antigen-affinity purified polyclonal antibody.
<b>Synonyms:</b>	Cytokine P40, HP40, IL-9, T cell Growth Factor P40
<b>Immunogen:</b>	Synthetic peptide from the N-terminal region of the mouse IL9 expressed in rabbit
<b>Species Reactivity:</b>	(+) Mouse
<b>Form:</b>	Liquid
<b>Storage:</b>	-80°C (as supplied)
<b>Stability:</b>	≥1 year
<b>Storage Buffer:</b>	0.2 µm filtered solution in PBS
<b>Clone:</b>	Polyclonal
<b>Host:</b>	Rabbit
<b>Isotype:</b>	IgG
<b>Applications:</b>	Immunohistochemistry (IHC) and Western blot (WB); the recommended starting dilution is 1:5,000-1:25,000 for IHC and 1:500-1:1,000 for WB. Other applications were not tested, therefore optimal working concentration/dilution should be determined empirically.

### Images



Lane 1: HepG2 whole cell lysate (30 µg)

WB of HepG2 cell lysate using Interleukin-9 Polyclonal Antibody at a dilution of 1:500.



Immunochemical staining of formalin-fixed and paraffin-embedded mouse spleen (from two donors) using Interleukin-9 Polyclonal Antibody at a dilution of 1:25,000.

**WARNING**  
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

**SAFETY DATA**  
This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

**WARRANTY AND LIMITATION OF REMEDY**  
Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 07/12/2022

**CAYMAN CHEMICAL**  
1180 EAST ELLSWORTH RD  
ANN ARBOR, MI 48108 · USA  
PHONE: [800] 364-9897  
[734] 971-3335  
FAX: [734] 971-3640  
CUSTSERV@CAYMANCHEM.COM  
WWW.CAYMANCHEM.COM

# PRODUCT INFORMATION



## Description

---

Interleukin-9 (IL-9) is a T helper 2 (Th2) type cytokine with various roles in immune regulation and inflammatory disease.<sup>1,2</sup> It is expressed in effector T cells, mast cells, neutrophils, eosinophils, and innate lymphoid cells in response to activation of various transcription factors, including NF- $\kappa$ B and nuclear factor of activated T cells (NFAT), and functions through the IL-9 receptor to induce signaling via STAT pathways and cell type-specific immune responses.<sup>1-3</sup> IL9 expression is increased in patients with asthma, and immunization with an anti-IL-9 antibody inhibits airway hyperresponsiveness in a mouse model of the disease. Antibody-based suppression of IL-9 also inhibits eosinophilia in various mouse models. IL-9 has both tumor suppressive and tumorigenic activities, enhancing T cell-mediated antitumor responses in colon cancer and promoting cell survival and multidrug resistance in diffuse large B cell lymphoma (DLBCL).<sup>4</sup> Cayman's IL-9 Polyclonal Antibody can be used for immunohistochemistry (IHC) or Western blot (WB) applications. The predicted size of IL-9 is 15 kDa and this antibody recognizes IL-9 at an observed band size of 17 kDa from mouse samples.

## References

---

1. Hauber, H.-P., Bergeron, C., and Hamid, Q. IL-9 in allergic inflammation. *Int. Arch. Allergy Immunol.* **134(1)**, 79-87 (2004).
2. Neurath, M.F. and Finotto, S. IL-9 signaling as key driver of chronic inflammation in mucosal immunity. *Cytokine Growth Factor Rev.* **29**, 93-99 (2016).
3. Li, H. and Rostami, A. IL-9: Basic biology, signaling pathways in CD4+ T cells and implications for autoimmunity. *J. Neuroimmune Pharmacol.* **5(2)**, 198-209 (2010).
4. Wan, J., Wu, Y., Ji, X., et al. IL-9 and IL-9-producing cells in tumor immunity. *Cell Commun. Signal.* **18(1)**, 50 (2020).

CAYMAN CHEMICAL  
1180 EAST ELLSWORTH RD  
ANN ARBOR, MI 48108 · USA  
PHONE: [800] 364-9897  
[734] 971-3335  
FAX: [734] 971-3640  
CUSTSERV@CAYMANCHEM.COM  
WWW.CAYMANCHEM.COM