

## PerCP/Cyanine5.5 anti-human IL-9 Antibody

<b>Catalog# / Size</b>	507609 / 25 tests 507610 / 100 tests
<b>Clone</b>	MH9A4
<b>Regulatory Status</b>	RUO
<b>Other Names</b>	Interleukin-9, P40, Mast cell growth factor (MCGF), Megakaryoblast growth factor, T cell growth factor-3 (TCGF-3)
<b>Isotype</b>	Mouse IgG2b, $\kappa$
<b>Description</b>	IL-9 is a potent, T cell-derived, T cell growth factor which can also enhance mast cell activity and IL-3- or IL-4- dependent proliferation of bone marrow-derived mast cells. IL-9 synergizes with erythropoietin to promote erythroid colony formation. IL-9 has also been reported to protect human T cells from apoptosis induced by IL-2 withdrawal. IL-9 is upregulated in human eosinophils by TNF- $\alpha$ and IL-1- $\beta$ . IL-9 has been reported to downregulate the oxidative burst in activated human alveolar macrophages and induce TGF- $\beta$ production. The MH9A4 antibody reacts with human IL-9. The MH9A4 antibody can neutralize the bioactivity of natural or recombinant IL-9.

### Product Details

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<b>Reactivity</b>	Human
<b>Antibody Type</b>	Monoclonal
<b>Host Species</b>	Mouse
<b>Immunogen</b>	Baculovirus-expressed, recombinant human IL-9
<b>Formulation</b>	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and BSA (origin USA)
<b>Preparation</b>	The antibody was purified by affinity chromatography and conjugated with PerCP/Cyanine5.5 under optimal conditions.
<b>Concentration</b>	Lot-specific (to obtain lot-specific concentration, please enter the lot number in our <a href="#">Concentration and Expiration Lookup</a> or <a href="#">Certificate of Analysis</a> online tools.)
<b>Storage &amp; Handling</b>	The antibody solution should be stored undiluted between 2°C and 8°C, and protected from prolonged exposure to light. <b>Do not freeze.</b>
<b>Application</b>	<a href="#">ICFC - Quality tested</a>
<b>Recommended Usage</b>	Each lot of this antibody is quality control tested by <a href="#">intracellular immunofluorescent staining with flow cytometric analysis</a> . For flow cytometric staining, the suggested use of this reagent is 5 $\mu$ l per million cells in 100 $\mu$ l staining volume or 5 $\mu$ l per 100 $\mu$ l of whole blood.  * PerCP/Cyanine5.5 has a maximum absorption of 482 nm and a maximum emission of 690 nm.
<b>Excitation Laser</b>	Blue Laser (488 nm)
<b>Application Notes</b>	<b>ELISA Capture<sup>2</sup>:</b> The purified MH9A4 antibody is useful as the capture antibody in a human IL-9 sandwich ELISA assay, when used in conjunction with the biotinylated MH9D1 antibody as the detecting antibody. For human IL-9 neutralization assay, the LEAF™ purified MH9D1 antibody (Endotoxin <0.1 EU/ $\mu$ g, Azide-Free, 0.2 $\mu$ m filtered) is recommended for neutralization of human IL-9 bioactivity.
<b>Additional Product Notes</b>	BioLegend is in the process of converting the name PerCP/Cy5.5 to PerCP/Cyanine5.5. The dye molecule remains the same, so you should expect the same quality and performance from our PerCP/Cyanine5.5 products. Contact <a href="#">Technical Service</a> if you have any questions.
<b>Application References</b>	1. Jenmalm M, <i>et al.</i> 2001. <i>Clin. Exptl. Aller.</i> 31:1528. 2. Faulkner H, <i>et al.</i> 2002. <i>J. Infec. Diseas.</i> 185:665. 3. Chen J, <i>et al.</i> 2008. <i>Blood</i> 111:5163. <a href="#">PubMed</a>
<b>(PubMed link indicates BioLegend citation)</b>	

4. Chang HC, *et al.* 2010. *Nat. Immunol.* 11:527. (ELISA) [PubMed](#)
5. Lozano E, *et al.* 2012. *J Immunol.* 188:3869. [PubMed](#).

#### Product Citations

1. Chang T, *et al.* 2020. *Aging (Albany NY).* 12:21147. [PubMed](#)

#### RRID

AB\_2564550 (BioLegend Cat. No. 507609)  
 AB\_2564551 (BioLegend Cat. No. 507610)

### Antigen Details

<b>Structure</b>	Cytokine; 32-39 kD (Mammalian)
<b>Bioactivity</b>	Potentiates production of IgG, IgM, and IgE by IL-4-induced B lymphocytes; regulates granzyme family proteases; enhances proliferation of bone marrow mast cells with IL-3; production of IL-6 by mast cells
<b>Cell Sources</b>	IL-2 activated T <sub>H</sub> 2 lymphocytes, Hodgkin's lymphoma
<b>Cell Targets</b>	T lymphocytes, erythroid precursors
<b>Receptors</b>	IL-9R
<b>Biology Area</b>	Immunology
<b>Molecular Family</b>	Cytokines/Chemokines
<b>Antigen References</b>	<ol style="list-style-type: none"> <li>1. Fitzgerald K, <i>et al.</i> Eds. 2001. <i>The Cytokine FactsBook</i>. Academic Press San Diego.</li> <li>2. Quesniaux V. 1992. <i>Research Immunology</i> 143:385.</li> <li>3. Renaud J, <i>et al.</i> 1993. <i>Adv. Immunol.</i> 54:79.</li> <li>4. Yang Y. 1992. <i>Leuk. Lymphoma</i> 8:441.</li> </ol>
<b>Regulation</b>	Upregulated by IL-1 after TCR activation, TNF- $\alpha$ ; downregulated by antibodies to IL-2
<b>Gene ID</b>	<a href="#">3578</a>

### Related Protocols

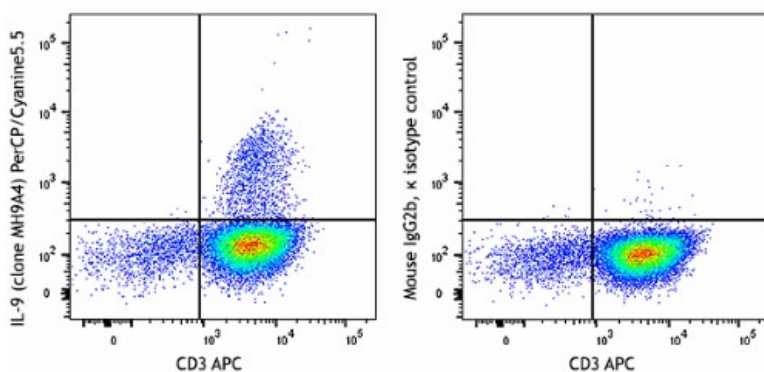
[Intracellular Cytokine Staining Protocol - Video](#)

[Intracellular Flow Cytometry Staining Protocol](#)

### Other Formats

Purified anti-human IL-9, PE anti-human IL-9, Alexa Fluor® 647 anti-human IL-9, PerCP/Cyanine5.5 anti-human IL-9, PE/Cyanine7 anti-human IL-9, APC anti-human IL-9

### Product Data



PMA and ionomycin-stimulated (6 hours, in the presence of monensin) Th2-polarized lymphocytes were surface stained with CD3 APC then fixed, permeabilized and intracellularly stained with IL-9 (clone MH9A4) PerCP/Cyanine5.5 (left), or mouse IgG2b,  $\kappa$  PerCP/Cyanine5.5 isotype control (right).

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