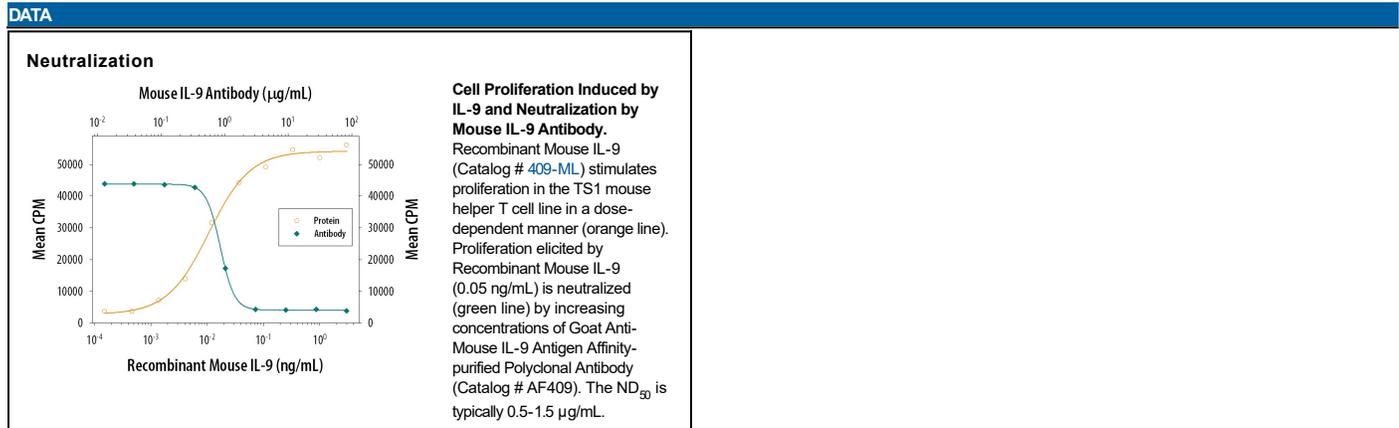


DESCRIPTION	
<b>Species Reactivity</b>	Mouse
<b>Specificity</b>	Detects mouse IL-9 in direct ELISAs and Western blots. In direct ELISAs and Western blots, approximately 5% cross-reactivity with human IL-9 is observed.
<b>Source</b>	Polyclonal Goat IgG
<b>Purification</b>	Antigen Affinity-purified
<b>Immunogen</b>	<i>S. frugiperda</i> insect ovarian cell line Sf 21-derived recombinant mouse IL-9 Gln19-Pro144 (Predicted) Accession # P15247
<b>Endotoxin Level</b>	<0.10 EU per 1 µg of the antibody by the LAL method.
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 µm filtered solution in PBS.

APPLICATIONS	
<b>Please Note:</b> Optimal dilutions should be determined by each laboratory for each application. <i>General Protocols</i> are available in the <i>Technical Information</i> section on our website.	
	<b>Recommended Concentration      Sample</b>
<b>Western Blot</b>	0.1 µg/mL      Recombinant Mouse IL-9 (Catalog # 409-ML)
<b>Neutralization</b>	Measured by its ability to neutralize IL-9-induced proliferation in the TS1 mouse helper T cell line. Moreau, F. J. <i>et al.</i> (1988) <i>Nature</i> 336:690. The Neutralization Dose (ND <sub>50</sub> ) is typically 0.5-1.5 µg/mL in the presence of 0.05 ng/mL Recombinant Mouse IL-9.



PREPARATION AND STORAGE	
<b>Reconstitution</b>	Reconstitute at 0.2 mg/mL in sterile PBS.
<b>Shipping</b>	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
<b>Stability &amp; Storage</b>	<b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b> <ul style="list-style-type: none"> <li>• 12 months from date of receipt, -20 to -70 °C as supplied.</li> <li>• 1 month, 2 to 8 °C under sterile conditions after reconstitution.</li> <li>• 6 months, -20 to -70 °C under sterile conditions after reconstitution.</li> </ul>

#### BACKGROUND

Mouse IL-9 was originally identified as a T cell-derived T cell growth factor III/P40 which could support the long term growth of certain mouse T helper clones in the absence of antigen or antigen-presenting cells. IL-9 can also prolong the *in vitro* survival of other T cell clones as well as potentiate the IL-2 dependent proliferation of mouse fetal thymocytes. However, this cytokine has no growth-stimulating activity on mouse cytolytic T cell clones or fresh T cells. In addition to its activities on T cells, mouse IL-9 also has mast cell enhancing activity (MEA) and can enhance the mIL-3- or mIL-4-dependent proliferation of mouse bone marrow-derived mast cells. Furthermore, IL-9 will synergize with erythropoietin to support erythroid colony formation *in vitro*.

The gene for mIL-9 has been mapped to mouse chromosome 13. The mouse IL-9 cDNA encodes a 144 amino acid residue precursor protein with an 18 amino acid signal peptide that is cleaved to form the mature cysteine-rich protein with a predicted molecular mass of 14 kDa. Mouse IL-9 contains four potential N-linked glycosylation sites and the native mIL-9 is a highly glycosylated protein.

Human IL-9 was independently cloned as a novel growth factor which is mitogenic for the human megakaryoblastic leukemic cell line, M07e. Human and mouse IL-9 share 56% and 67% homology at the amino acid and nucleotide levels, respectively. Although mouse IL-9 is active on human cells, human IL-9 is not active on mouse cells.

#### References:

1. Renaud, J.E. *et al.* (1995) *J. Leukoc. Biol* **57**:303.