Mouse IL-9 Antibody

Polyclonal Goat IgG
Catalog Number: AB-409-NA

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse IL-9 in direct ELISAs and Western blots. In direct ELISAs and Western blots, approximately 25% cross-reactivity with recombinant human IL-9 is observed. Neutralizes the biological activity of recombinant mouse IL-9. It will not neutralize the biological activity of recombinant human IL-9.
Source	Polyclonal Goat IgG
Purification	Protein A or G purified
Immunogen	*S. frugiperda* insect ovarian cell line *Sf* 21-derived recombinant mouse IL−9 Gln19-Pro144 Accession # P15247
Endotoxin Level	<0.10 EU per 1 µg of the antibody by the LAL method.
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details.

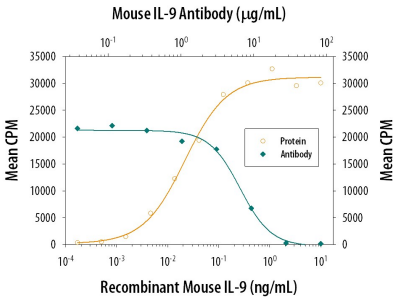
APPLICATIONS

Please Note: *Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.*

	Recommended Concentration	Sample
Western Blot	1 µg/mL	Recombinant Mouse IL−9 (Catalog # 409-ML)
Neutralization	Measured by its ability to neutralize IL−9-induced proliferation in the TS1 mouse helper T cell line. Uyttenhove, C. *et al.* (1988) Proc. Natl. Acad. Sci. **85**:6934. The Neutralization Dose (ND_{50}) is typically 3-18 µg/mL in the presence of 0.05 ng/mL Recombinant Mouse IL−9.	

DATA

Neutralization



Cell Proliferation Induced by IL-9 and Neutralization by Mouse IL-9 Antibody. Recombinant Mouse IL-9 (Catalog # 409-ML) stimulates proliferation in the TS1 mouse helper T cell line in a dose-dependent manner (orange line). Proliferation elicited by Recombinant Mouse IL-9 (0.05 ng/mL) is neutralized (green line) by increasing concentrations of Goat Anti-Mouse IL-9 Polyclonal Antibody (Catalog # AB-409-NA). The ND_{50} is typically 3-18 µg/mL.

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 1 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	**Use a manual defrost freezer and avoid repeated freeze-thaw cycles.** ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

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

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