

Technical Data Sheet

Purified NA/LE Hamster Anti-Mouse IL-9

Product Information

Material Number:	554472
Alternate Name:	IL-9; Interleukin-9; MEA; P40; T-cell growth factor P40; TCGF III
Size:	0.5 mg
Concentration:	1.0 mg/ml
Clone:	D9302C12
Immunogen:	Mouse IL-9 Recombinant Protein
Isotype:	Armenian Hamster IgG2, κ
Reactivity:	QC Testing: Mouse
Storage Buffer:	No azide/low endotoxin: Aqueous buffered solution containing no preservative, 0.2 μ m sterile filtered. Endotoxin level is ≤ 0.01 EU/ μ g (≤ 0.001 ng/ μ g) of protein as determined by the LAL assay.

Description

The D9302C12 monoclonal antibody specifically binds to the multifunctional mouse cytokine, Interleukin-9 (IL-9). IL-9 is a 126 amino acid-long glycoprotein that is produced by various subsets of activated CD4⁺ T cells. IL-9 acts on target cells by binding to and signaling through the heterodimeric IL-9 receptor (IL-9R) complex that is comprised of transmembrane IL-9 receptor alpha (IL-9R α) and common gamma chain (γ c) subunits. IL-9 can promote the survival, growth, proliferation and/or differentiation of various cell types including thymocytes, T cells, B cells, mast cells, and hematopoietic progenitor cells. IL-9 can augment IL-4-induced IgE and IgG1 production from lipopolysaccharide-primed mouse B cells and induce granzyme and high-affinity IgE receptor gene expression by mouse T helper cell clones and mast cell lines. IL-9 plays an important role *in vivo* in helminth elimination. The D9302C12 antibody neutralizes mouse IL-9 bioactivity.

Preparation and Storage

Store undiluted at 4°C.

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

This preparation contains no preservatives, thus it should be handled under aseptic conditions.

Application Notes

Application

ELISA	Routinely Tested
Neutralization	Tested During Development

Neutralization Activity:

This antibody has been reported to be useful for the neutralization of recombinant mouse IL-9. Neutralization activity may be measured with a proliferation assay using 500 pg/mL recombinant mouse IL-9 to stimulate MC/9 cells at 5x10⁴ cells/mL as indicator cells.

50% Neutralization (ND50) at 5 – 25 ng/mL

$\geq 95\%$ Neutralization at 50 – 250 ng/mL

Recommended Assay Procedure:

ELISA: Biotin Hamster Anti-Mouse IL-9 antibody (Clone D9302C12, Cat. No. 554473) is useful as a detection antibody in sandwich ELISA for measuring mouse IL-9 protein levels and can be paired with Purified Rat Anti-Mouse IL-9 (Clone D8402E8, Cat. No. 551218) as the capture antibody with recombinant mouse IL-9 as the standard.

Suggested Companion Products

Catalog Number	Name	Size	Clone
559339	Purified NA/LE Hamster IgG2, κ Isotype Control	0.5 mg	B81-3
554473	Biotin Hamster Anti-Mouse IL-9	0.5 mg	D9302C12
551218	Purified Rat Anti-Mouse IL-9	1.0 mg	D8402E8

Product Notices

- Since applications vary, each investigator should titrate the reagent to obtain optimal results.
- An isotype control should be used at the same concentration as the antibody of interest.
- Although hamster immunoglobulin isotypes have not been well defined, BD Biosciences Pharmingen has grouped Armenian and Syrian hamster IgG monoclonal antibodies according to their reactivity with a panel of mouse anti-hamster IgG mAbs. A table of the hamster IgG groups, Reactivity of Mouse Anti-Hamster Ig mAbs, may be viewed at http://www.bdbiosciences.com/documents/hamster_chart_11x17.pdf.
- Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.

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Renauld JC, Kermouni A, Vink A, Louahed J, Van Snick J. Interleukin-9 and its receptor: involvement in mast cell differentiation and T cell oncogenesis. *J Leukoc Biol*. 1995; 57(3):353-360. (Biology)

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