

## Technical Data Sheet

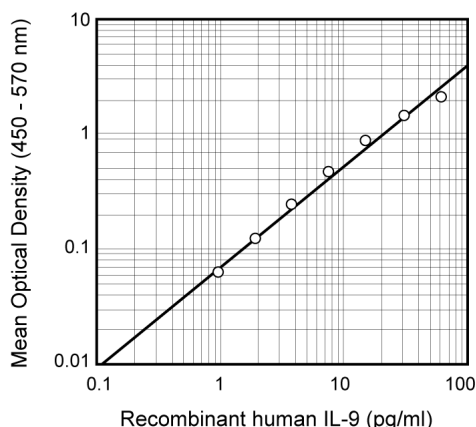
## Biotin Mouse Anti-Human IL-9

## Product Information

Material Number:	558089
Size:	0.5 mg
Concentration:	0.5 mg/ml
Clone:	MH9A3
Immunogen:	Recombinant human IL-9 protein
Isotype:	Mouse (C57BL/6) IgG1, $\kappa$
Reactivity:	QC Testing: Human
Storage Buffer:	Aqueous buffered solution containing $\leq 0.09\%$ sodium azide.

## Description

The MH9A3 monoclonal antibody reacts with human interleukin-9 (IL-9), a 14.1 kDa T cell-derived multifunctional cytokine. IL-9 induces the proliferation and differentiation of various lymphoid (eg, T lymphocytes, B lymphocytes, mast cells, eosinophils, and neutrophils) and hemopoietic cells. It potentiates the interleukin-4-induced IgG and IgE responses by human B lymphocytes. Further, IL-9 has been implicated in human allergic disorders.



Curve from a sandwich ELISA that measures IL-9 protein levels, generated using the purified MH9A4 antibody as capture antibody, doubling dilutions of recombinant human IL-9 protein as standard and biotinylated MH9A3 antibody as detection antibody. Avidin-HRP and the TMB substrate were used to develop the detection stage and mean OD was measured at 450 - 570 nm. The standard curve is displayed as the concentration of recombinant human IL-9 in pg/ml versus the microwell absorbance (in circles).

## Preparation and Storage

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

The antibody was conjugated with biotin under optimum conditions, and unreacted biotin was removed.

Store undiluted at 4° C and protected from prolonged exposure to light. Do not freeze.

## Application Notes

## Application

ELISA Detection

Routinely Tested

## Recommended Assay Procedure:

The biotinylated MH9A3 antibody is useful as a detection antibody for a sandwich ELISA that measures human IL-9 protein levels. The biotinylated MH9A3 antibody can be paired with the purified MH9A4 anti-human IL-9 (Cat. No. 558088) as the capture antibody, with recombinant human IL-9 protein as the standard. The biotinylated MH9A3 antibody should be titrated between 0.25 - 2  $\mu$ g/ml to determine its optimal ELISA detection concentration. To obtain linear standard curves, doubling dilutions of recombinant human IL-9 protein ranging from 1.0 to 125 pg/ml are recommended for inclusion in each ELISA plate. For specific methodology information, see Chapter 7: ELISA for specifically measuring the levels of cytokines, chemokines, and inflammatory mediators and their receptors. 2003. Techniques for Immune Function Analysis application Handbook 1st Edition. BD Biosciences. Available for download as the Immune Function Application handbook from <http://www.bdbiosciences.com/cgi-bin/literature/archive?type=2&brand=0>

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Note: This ELISA antibody pair shows no crossreactivity with the following recombinant human cytokines: IL-1a, IL-1 $\beta$ , IL-2, IL-3, IL-4, IL-5, IL-6, IL-7, IL-8, IL-10, IL-12p40, IL-12p70, IL-13, IL-18, IFN $\gamma$ , gp130, TNF, 4-1BB. This ELISA antibody pair also shows no cross-reactivity with recombinant cytokines from other species: mouse IL-9.

## Suggested Companion Products

<u>Catalog Number</u>	<u>Name</u>	<u>Size</u>	<u>Clone</u>
558088	Purified Mouse Anti-Human IL-9	0.5 mg	MH9A4
554058	HRP Avidin	1.0 ml	(none)
555214	TMB Substrate Reagent Set	each	(none)
353279	Purified Mouse Anti- 96-well Flat-bottom ELISA Plates	each	(none)

## Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Please refer to [www.bdbiosciences.com/pharmingen/protocols](http://www.bdbiosciences.com/pharmingen/protocols) for technical protocols.
3. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.

## References

Demoulin JB, Renauld JC. Interleukin 9 and its receptor: an overview of structure and function. *Int Rev Immunol*. 1998; 16(3-4):345-364.(Biology)  
Dugas B, Renauld JC, Pène J, Bonnefoy JY, Peti-Frère C, Braquet P, Bousquet J, Van Snick J, Mencia-Huerta JM. Interleukin-9 potentiates the interleukin-4-induced immunoglobulin (IgG, IgM and IgE) production by normal human B lymphocytes. *Eur J Immunol*. 1993 July; 23(7):1687-1692.(Biology)  
Jenmalm MC, Van Snick J, Cormont F, Salman B. Allergen-induced Th1 and Th2 cytokine secretion in relation to specific allergen sensitization and atopic symptoms in children. *Clin Exp Allergy*. 2001 October; 31(10):1528-1535.(Biology)  
Renauld JC, Oppenheim JJ, Feldman M, Durum SK, et al, ed. *Cytokine reference: a compendium of cytokines and other mediators of host defense*. San Diego: Academic Press; 2001:155-164.(Biology)  
Renauld JC. New insights into the role of cytokines in asthma. *J Clin Pathol*. 2001 August; 54(8):577-589.(Biology)