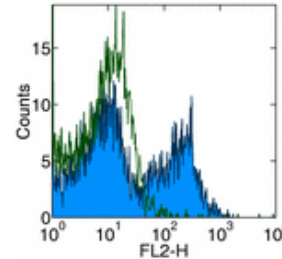


## Product Information

Contents: Affinity Purified anti-mouse MD-1  
Catalog Number: 14-9921  
Sizes: 50 ug, 100 ug  
Formulation: Phosphate buffer pH 7.2,  
150 mM NaCl, 0.09% NaN<sub>3</sub>  
Storage Conditions: Store at 4°C.  
Avoid repeated freeze/thaw cycles.  
Clone: MD14  
Isotype: Rat IgG2a, κ



*Surface staining of mouse splenocytes with anti-mouse MD-1 (MD14) PE. Appropriate isotype controls were used (open histogram). Total viable cells were used for analysis.*

## Available Formats of This Product

Cat. No.	Format	Excite (nm)	Emit (nm)	Reported Applications
12-9921	PE anti-mouse MD-1 (MD1; Toll-like Receptor/ TLR Family)	488	575	FC
13-9921	Biotin anti-mouse MD-1 (MD1; Toll-like Receptor/ TLR Family)	N/A	N/A	FC
14-9921	Affinity Purified anti-mouse MD-1 (MD1; Toll-like Receptor/ TLR Family)	N/A	N/A	FC

## Description

The MD14 monoclonal antibody reacts with mouse MD-1, a 28 kDa molecule, which physically associates with the extracellular portion of RP105 (CD180). MD-1 is expressed by mature B cells, monocytes/macrophages and dendritic cells. The coexpression of MD-1 is indispensable for cell surface expression of RP105 and LPS recognition and signaling. Several monoclonal antibodies to mouse MD-1, including MD14 and MD113, have been reported to be antagonistic for LPS-induced B cell proliferation and CD86 upregulation, while the anti-mouse CD180 (clone RP/14, Cat. No. 16-1801) is reported to exert potent mitogenic effect. The mAb MD113 (Cat. No. 16-9931) is reported to suppress LPS-induced B cell responses to a higher degree than MD14.

## Usage

For research use only, not for diagnostic or therapeutic use. MD14 has been reported for use in flow cytometric analysis. MD-14 is not useful for immunoprecipitation and immunoblotting (WB). Applicability of MD14 for use in immunohistochemistry has not been evaluated.

## Applications Tested

The MD14 antibody has been tested by flow cytometric analysis of mouse spleen cell suspensions and can be used at less than or equal to 1 µg per million cells. It is recommended that the antibody be carefully titrated for optimal performance in the assay of interest.

## Related Products

Cat. 12-1801 PE anti-mouse CD180 (RP105, Toll-like Receptor/ TLR Family) (clone RP/14)  
Cat. 13-1801 Biotin anti-mouse CD180 (RP105, Toll-like Receptor/ TLR Family) (clone RP/14)  
Cat. 11-4317 Streptavidin-FITC (Fluorescein isothiocyanate)  
Cat. 12-4317 Streptavidin-PE (Phycoerythrin)  
Cat. 17-4317 Streptavidin Allophycocyanin (SA-APC)  
Cat. 14-4321 Affinity Purified Rat IgG2a Isotype Control  
Cat. 11-4811 FITC Anti-Rat IgG  
Cat. 13-4813 Biotin Anti-Rat IgG (clone Polyclonal)

## References

Nagai, Y., R. Shimazu, et al. 2002. Requirement for MD-1 in cell surface expression of RP105/CD180 and B-cell responsiveness to lipopolysaccharide. *Blood* 99(5):1699-705.

Miyake, K., R. Shimazu, et al. 1998. Mouse MD-1, a molecule that is physically associated with RP105 and positively regulates its expression. *J Immunol* 161(3): 1348-53.

Miyake, K., H. Ogata, et al. 2000. Innate recognition of lipopolysaccharide by Toll-like receptor 4/MD-2 and RP105/MD-1. *J Endotoxin Res* 6(5):389-91.

Miura, Y., R. Shimazu, et al. 1998. RP105 is associated with MD-1 and transmits an activation signal in human B cells. *Blood* 92(8):2815-22.

Gorczyński, R. M., Z. Chen, et al. 2000. Regulation of gene expression of murine MD-1 regulates subsequent T cell activation and cytokine production. *J Immunol* 165(4):1925-32.

Ogata, H., I. Su, et al. 2000. The toll-like receptor protein RP105 regulates lipopolysaccharide signaling in B cells. *J Exp Med* 192(1):23-9.

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