

Technical Data Sheet

Biotin Mouse Anti-Mouse CD22.2

Product Information

Material Number:	553382
Alternate Name:	Lyb-8.2
Size:	0.5 mg
Concentration:	0.5 mg/ml
Clone:	Cy34.1
Immunogen:	B10.D2 mouse splenocytes
Isotype:	Mouse (DBA/1) IgG1, κ
Reactivity:	QC Testing: Mouse
Storage Buffer:	Aqueous buffered solution containing $\leq 0.09\%$ sodium azide.

Description

The Cy34.1 antibody reacts with the B-lymphocyte differentiation antigen CD22 on strains having the Lyb-8.2 alloantigen (e.g., A, BALB/c, CBA, C3H/He, C57BL, C57L, C58, SJL, SWR, but not AKR, DBA/1, DBA/2, NZB, PL). CD22 is expressed at high levels on mature peripheral B lymphocytes (follicular and marginal zone), B-1 cells (CD5+ B cells), and plasma cells. It is a member of the Ig gene superfamily and associates with the B-cell antigen receptor. Its sialic acid-binding immunoglobulin-like lectin (siglec) extracellular region mediates B-cell adhesion to ligands on endothelial cells in the bone marrow. Its intracellular domain is phosphorylated after cross-linking of antigen receptor or MHC class II antigen. It is involved in negative regulation of B-cell activation and protection from autoimmunity. B-cell proliferative responses to LPS or anti-mouse Ig μ chain are augmented in the presence of Cy34.1 mAb.

This antibody is routinely tested by flow cytometric analysis. Other applications were tested at BD Biosciences Pharmingen during antibody development only or reported in literature.

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

Flow cytometry	Routinely Tested
Immunohistochemistry-frozen	Tested During Development
Immunoprecipitation	Reported

Suggested Companion Products

Catalog Number	Name	Size	Clone
550615	Biotin Mouse IgG1 κ Isotype Control	0.25 mg	MOPC-31C
554057	Avidin FITC	0.5 mg	(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 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.

BD Biosciences

www.bdbiosciences.com

United States 877.232.8995 Canada 888.259.0187 Europe 32.53.720.550 Japan 0120.8555.90 Asia Pacific 65.6861.0633 Latin America/Caribbean 55.11.5185.9995

For country-specific contact information, visit www.bdbiosciences.com/how_to_order/

Conditions: The information disclosed herein is not to be construed as a recommendation to use the above product in violation of any patents. BD Biosciences will not be held responsible for patent infringement or other violations that may occur with the use of our products. Purchase does not include or carry any right to resell or transfer this product either as a stand-alone product or as a component of another product. Any use of this product other than the permitted use without the express written authorization of Becton Dickinson and Company is strictly prohibited.

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Not for resale.

BD, BD Logo and all other trademarks are the property of Becton, Dickinson and Company. ©2007 BD



References

- Bobbitt KR, Justement LB. Regulation of MHC class II signal transduction by the B cell coreceptors CD19 and CD22. *J Immunol.* 2000; 165(10):5588-5596. (Biology)
- Doody GM, Justement LB, Delibrias CC. A role in B cell activation for CD22 and the protein tyrosine phosphatase SHP. *Science.* 1995; 269(5221):242-244. (Biology)
- Erickson LD, Tygrett LT, Bhatia SK, Grabstein KH, Waldschmidt TJ. Differential expression of CD22 (Lyb8) on murine B cells. *Int Immunol.* 1996; 8(7):1121-1129. (Biology)
- Law CL, Sidorenko SP, Clark EA. Regulation of lymphocyte activation by the cell-surface molecule CD22. *Immunol Today.* 1994; 15(9):442-449. (Biology)
- Law CL, Torres RM, Sundberg HA. Organization of the murine Cd22 locus. Mapping to chromosome 7 and characterization of two alleles. *J Immunol.* 1993; 151(1):175-187. (Clone-specific)
- Mary C, Laporte C, Parzy D. Dysregulated expression of the Cd22 gene as a result of a short interspersed nucleotide element insertion in Cd22a lupus-prone mice. *J Immunol.* 2000; 165(6):2987-2996. (Biology)
- Nitschke L, Floyd H, Ferguson DJ, Crocker PR. Identification of CD22 ligands on bone marrow sinusoidal endothelium implicated in CD22-dependent homing of recirculating B cells. *J Exp Med.* 1999; 189(9):1513-1518. (Biology)
- O'Keefe TL, Williams GT, Davies SL, Neuberger MS. Hyperresponsive B cells in CD22-deficient mice. *Science.* 1996; 274(5288):798-801. (Biology)
- Stall AM, Wells SM. FACS analysis of murine B-cell populations. In: Herzenberg LA, Weir DM, Blackwell C, ed. *Weir's Handbook of Experimental Immunology*. Blackwell Science Publishers; 1997:63.1-63.17. (Biology)
- Stoddart A, Ray RJ, Paige CJ. Analysis of murine CD22 during B cell development: CD22 is expressed on B cell progenitors prior to IgM. *Int Immunol.* 1997; 9(10):1571-1579. (Biology)
- Symington FW, Subbarao B, Mosier DE, Sprent J. Lyb-8.2: A new B cell antigen defined and characterized with a monoclonal antibody. *Immunogenetics.* 1982; 16(5):381-391. (Immunogen: Immunoprecipitation)