

Anti-Mouse CD24 Antibody, Clone M1/69, Biotin



Scientists Helping Scientists™ | WWW.STEMCELL.COM

TOLL FREE PHONE 1 800 667 0322 • PHONE +1 604 877 0713

INFO@STEMCELL.COM • TECHSUPPORT@STEMCELL.COM

FOR GLOBAL CONTACT DETAILS VISIT OUR WEBSITE

Antibodies

Rat monoclonal IgG2b antibody
against mouse CD24, biotin-
conjugated

Catalog #60099BT
#60099BT.1

500 µg 0.5 mg/mL
50 µg 0.5 mg/mL

FOR RESEARCH USE ONLY. NOT INTENDED FOR HUMAN OR ANIMAL DIAGNOSTIC OR THERAPEUTIC USES.

Product Description

The M1/69 antibody reacts with murine CD24, an ~35 - 45 kDa glycosylphosphatidylinositol (GPI)-anchored glycoprotein expressed on lymphocytes, granulocytes, thymocytes, erythrocytes, epithelial cells, neurons and dendritic cells. CD24 is differentially expressed during T and B cell development, and is not found on the majority of mature peripheral T cells or plasma cells. It is expressed on pro-B, pre-B and mature B cells, but expression is strongly down-regulated after B cell activation. It is involved in regulating B-cell apoptosis and in preventing terminal differentiation of B cells into antibody-secreting plasmablasts and plasma cells. CD24 acts as an adhesion or co-stimulatory molecule and is involved in lymphocyte activation, proliferation and differentiation through homophilic interactions or by binding to ligands such as P-selectin (CD62P). Heterogeneous glycosylation results in a variable molecular mass for the molecule on cells of different lineages and is also believed to cause the slight differences in the degree of labeling observed for lymphocyte populations when employing alternative CD24-specific antibodies. The M1/69 antibody reportedly induces agglutination and lysis of mouse red blood cells in the presence of complement.

Target Antigen Name:	CD24
Alternative Names:	CD24a, Heat Stable Antigen, HSA, Ly-52, Nectadrin, Small cell lung carcinoma cluster 4 antigen
Gene ID:	12484
Species Reactivity:	Mouse
Host Species:	Rat (DA)
Clonality:	Monoclonal
Clone:	M1/69
Isotype:	IgG2b, kappa
Immunogen:	C57BL/10 mouse splenic T cells and concanavalin A-activated splenocytes
Conjugate:	Biotin

Applications

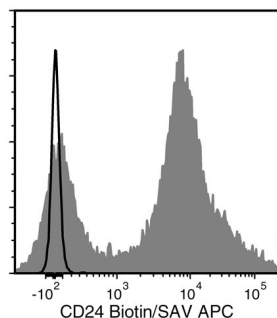
Verified:	FC
Reported:	FC, IHC
Special Applications:	This antibody clone has been verified for purity assessments of cells isolated with EasySep™ kits, including EasySep™ Mouse B Cell Isolation Kit (Catalog #19854).

Abbreviations: CellSep: Cell separation; ChIP: Chromatin immunoprecipitation; FA: Functional assay; FC: Flow cytometry; ICC: Immunocytochemistry; IF: Immunofluorescence microscopy; IHC: Immunohistochemistry; IP: Immunoprecipitation; WB: Western blotting

Properties

Formulation:	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide
Purification:	The antibody was purified by affinity chromatography and conjugated with biotin under optimal conditions. The solution is free of unconjugated biotin.
Stability and Storage:	Product stable at 2 - 8°C when stored undiluted. Do not freeze. For product expiry date, please contact techsupport@stemcell.com .
Directions for Use:	For flow cytometry the suggested use of this antibody is ≤ 0.25 µg per 1×10^6 cells in 100 µL volume. It is recommended that the antibody be titrated for optimal performance for each application.

Data



Flow cytometry analysis of C57BL/6 mouse splenocytes labeled with Anti-Mouse CD24 Antibody, Clone M1/69, Biotin followed by streptavidin (SAV) APC (filled histogram), or a biotinylated rat IgG2b, kappa isotype control antibody followed by SAV APC (solid line histogram).

Related Products

For a complete list of antibodies, including other conjugates, sizes and clones, as well as related products available from STEMCELL Technologies, please visit our website at www.stemcell.com/antibodies or contact us at techsupport@stemcell.com.

References

1. Wilson A, et al. Subpopulations of mature murine thymocytes: properties of CD4-CD8+ and CD4+CD8- thymocytes lacking the heat-stable antigen. *Cellular Immunology* 117(2): 312-26, 1988 (FC)
2. Kay R, et al. Expression cloning of a cDNA encoding M1/69-J11d heat-stable antigens. *J Immunol* 145: 1952-59, 1990 (FC, WB)
3. Kadmon G, et al. Differential, LFA-1-sensitive effects of antibodies to nectadrin, the heat-stable antigen, on B lymphoblast aggregation and signal transduction. *Biochem Biophys Res Commun* 198(3): 1209-15, 1994 (FA/Stimulation)
4. Chappel MS, et al. Cross-linking the murine heat-stable antigen induces apoptosis in B cell precursors and suppresses the anti-CD40-induced proliferation of mature resting B lymphocytes. *J Exp Med* 184(5): 1639-49, 1996 (FA/Inhibition, FC)
5. Nielsen PJ, et al. Altered erythrocytes and a leaky block in B-cell development in CD24/HSA-deficient mice. *Blood* 89(3): 1058-67, 1997 (FC)
6. Koni PA, Flavell RA. Lymph node germinal centers form in the absence of follicular dendritic cell networks. *J Exp Med* 189(5): 855-64, 1999 (FC, IHC)
7. Chen CY, et al. Regenerative potentials of the murine thyroid in experimental autoimmune thyroiditis: role of CD24. *Endocrinology* 150(1): 492-99, 2009 (IHC)
8. Teague TK, et al. CD28 expression redefines thymocyte development during the pre-T to DP transition. *Int Immunol* 22(5): 387-97, 2010 (FC)
9. Langlet C, et al. CD64 expression distinguishes monocyte-derived and conventional dendritic cells and reveals their distinct role during intramuscular immunization. *J Immunol* 188(4): 1751-60, 2012 (FC)
10. Neirinckx V, et al. Adult bone marrow neural crest stem cells and mesenchymal stem cells are not able to replace lost neurons in acute MPTP-lesioned mice. *PLoS ONE* 8(5): e64723, 2013 (IF, IHC)

STEMCELL TECHNOLOGIES INC.'S QUALITY MANAGEMENT SYSTEM IS CERTIFIED TO ISO 13485 MEDICAL DEVICE STANDARDS.

Copyright © 2014 by STEMCELL Technologies Inc. All rights reserved including graphics and images. STEMCELL Technologies & Design, STEMCELL Shield Design, Scientists Helping Scientists, STEMdiff and NeuroCult are trademarks of STEMCELL Technologies Inc. All other trademarks are the property of their respective holders. Alexa Fluor® is a registered trademark of Life Technologies Corporation. This product is licensed for internal research use only and its sale is expressly conditioned on the buyer not using it for manufacturing, performing a service, or medical test, or otherwise generating revenue. For use other than research, contact Life Technologies Corporation, 5791 Van Allen Way, Carlsbad, CA 92008 USA or outlicensing@lifetech.com. While STEMCELL has made all reasonable efforts to ensure that the information provided by STEMCELL and its suppliers is correct, it makes no warranties or representations as to the accuracy or completeness of such information.