



CELL LAB Mouse Anti-Mouse CD19

Cat. No.	Form	Quantity
732065	Purified (UNLB) Antibody	0.5 mg
732066	Fluorescein (FITC) Conjugate	0.5 mg
732067	Biotin (BIOT) Conjugate	0.5 mg
732068	Phycoerythrin (PE) Conjugate	0.1 mg
732069	Allophycocyanin (APC) Conjugate	0.1 mg
732070	Spectral Red™ (SPRD) Conjugate	0.1 mg
733276	Phycoerythrin-Cyanine 5.5 (PE-Cy™5.5) Conjugate	0.1 mg

For Laboratory Use Only

DESCRIPTION

Clone:	MB19-1
Isotype:	Mouse (129 x C57BL/6) IgA κ
Immunogen:	mCD19 ⁺ mouse pre-B cell line, 300.19 ¹
Specificity:	mCD19 B-cell differentiation antigen, Mr 95 kDa

CD19 is a monomeric transmembrane glycoprotein expressed at relatively constant levels throughout B cell development from early pro-B/pre-B cells (that is, B220⁺/CD43⁺/HSA⁺) through fully differentiated B cell stages.¹⁻⁷ Terminally differentiated plasma cells do not express CD19.¹ In humans, the CD19 molecule on the surface of mature B cells associates with CD21 (CR-2) and CD81 (TAPA-1), and this multimolecular complex synergizes with surface immunoglobulin to provide signal transduction and promote cellular activation.^{3,4} All splenic and peritoneal IgM⁺ cells of both B-1 and B-2 lineages are CD19⁺,¹ with B-1 cells expressing higher levels of CD19 than B-2 cells in these sites.⁷ Recent studies with CD19-deficient mice have suggested that this molecule may not be required for normal generation and maturation of B cells in the bone marrow.^{7,8}

APPLICATIONS

- Flow cytometry¹⁻³
- Immunoprecipitation¹

CHARACTERIZATION

To ensure lot-to-lot consistency, each batch of product is tested to conform with characteristics of a standard reference reagent using flow cytometry.

WORKING DILUTIONS

Flow Cytometry:	FITC conjugate	≤1 μg/10 ⁶ cells
	BIOT conjugate	≤1 μg/10 ⁶ cells
	PE conjugate	≤0.2 μg/10 ⁶ cells
	APC conjugate	≤0.2 μg/10 ⁶ cells
	SPRD conjugate	≤0.2 μg/10 ⁶ cells

Other Applications: Since applications vary, determine the optimum working dilution of the product that is appropriate for your specific needs.

HANDLING AND STORAGE

- The purified (UNLB) antibody is supplied as 0.5 mg of purified immunoglobulin in 1.0 mL of 100 mM borate buffered saline, pH 8.0. No preservatives or amine-containing buffer salts added.
- The fluorescein (FITC) conjugate is supplied as 0.5 mg in 1.0 mL of PBS/NaN₃.
- The biotin (BIOT) conjugate is supplied as 0.5 mg in 1.0 mL of PBS/NaN₃.
- The phycoerythrin (PE) and allophycocyanin (APC) conjugates are supplied as 0.1 mg in 1.0 mL of PBS/NaN₃ and a stabilizing agent.
- The Spectral Red (SPRD) and phycoerythrin-Cyanine 5.5 (PE-Cy5.5) conjugates are supplied as 0.1 mg in 1.0 mL of PBS/NaN₃ and a stabilizing agent.
- Protect fluorochrome-conjugated forms from light. Do not freeze.
- Reagent is stable until the expiration date on the vial when stored at 2-8°C.

STATEMENT OF WARNINGS

1. Specimens, samples and all material coming in contact with them should be handled as if capable of transmitting infection and disposed of with proper precautions.
2. Never pipet by mouth and avoid contact of samples with skin and mucous membranes.
3. Do not use reagent beyond the expiration date on the vial label.
4. Minimize exposure of reagent to light during storage or incubation.
5. Avoid microbial contamination of reagent or erroneous results may occur.
6. Use Good Laboratory Practice (GLP) when handling this reagent.
7. Harmful if swallowed.
8. After contact with skin, wash immediately with plenty of water.
9. Contains sodium azide. Sodium azide under acidic conditions yields hydrazoic acid, an extremely toxic compound. Azide compounds should be flushed with running water while being discarded. These precautions are recommended to avoid deposits in metal piping in which explosive conditions can develop. If skin or eye contact occurs, immediately wash excessively with water.

TRADEMARKS

The Beckman Coulter logo is a trademark of Beckman Coulter, Inc.

Spectral Red is a trademark of Southern Biotechnology Associates, Inc.

Cy5 and Cy5.5 are trademarks of GE Healthcare, Inc.

For additional information or if damaged product is received, contact your local Beckman Coulter Representative.

Spectral Red is a PE/Cy[™]5 tandem conjugate. Cy5 and Cy5.5 are for non-commercial research use only, not for therapeutic or in vivo applications. Other use needs license from Amersham Biosciences Corp., under U.S. Patent Nos. 4,981,977 and 5,268,486 and other patents pending. This material (or portions of this material) is subject to proprietary rights of Amersham Biosciences Corp. and Carnegie Mellon University and made and sold under license from Amersham Biosciences Corp. This product is licensed for sale only for research. It is not licensed for any other use. There is no implied license hereunder for any commercial use. Commercial use shall include: 1) sale, lease, license or other transfer of the material or any material derived or produced from it 2) sale, lease, license or other grant of rights to use this material or any material derived or produced from it 3) use of this material to perform services for a fee for third parties. If you require a commercial license to use this material and do not have one, return this material, unopened to Beckman Coulter, Inc. 11800 SW 147 Ave. Miami, FL 33196, USA and any money paid for the material will be refunded.

REFERENCES

1. Sato S, Ono N, Steeber DA, Pisetsky DS and Tedder TF. 1996. CD19 regulates B lymphocyte signaling thresholds critical for the development of B-1 lineage cells and autoimmunity. *J Immunol*, 157:4371-4378.
2. Krop I, de Fougerolles AR, Hardy RR, Allison M, Schlissel MS and Fearon DT. 1996. Self-renewal of B-1 lymphocytes is dependent on CD19. *Eur J Immunol*, 26:238-242.
3. Krop I, Shaffer AL, Fearon DT and Schlissel MS. 1996. The signaling activity of murine CD19 is regulated during cell development. *J Immunol*, 157:48-56.
4. Fearon DT. 1993. The CD19-CR2-TAPA-1 complex, CD45 and signaling by the antigen receptor of B lymphocytes. *Curr Opin Immunol*, 5:341-348.
5. Tedder TF, Zhou LJ and Engel P. 1994. The CD19/CD21 signal transduction complex of B lymphocytes. *Immunol Today*, 15:437-442.
6. Rickert RC, Rajewsky K and Roes J. 1995. Impairment of T-cell-dependent B-cell responses and B-1 cell development in CD19-deficient mice. *Nature*, 376:352-355.
7. Engel P, Zhou LJ, Ord DC, Sato S, Koller B and Tedder TF. 1995. Abnormal B lymphocyte development, activation, and differentiation in mice that lack or overexpress the CD19 signal transduction molecule. *Immunity*, 3:39-50.
8. Rolink A, Ten BE, Melchers F, Fearon DT, Krop I and Andersson J. 1996. A subpopulation of B220+ cells in murine bone marrow does not express CD19 and contains natural killer cell progenitors. *J Exp Med*, 183:187-194.



Manufactured for:
Beckman Coulter, Inc.
4300 N. Harbor Blvd.
Fullerton, CA 92835
www.beckmancoulter.com

Printed in USA
Made in USA

© 2005 Beckman Coulter, Inc.
All Rights Reserved.

PN 733921-A