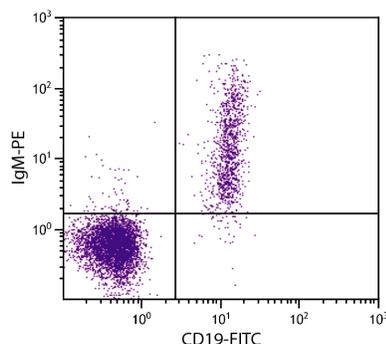




Goat Anti-Human IgM

Cat. No.	Format	Size
2020-01	Purified (UNLB)	1.0 mg
2020-02	Fluorescein (FITC)	1.0 mg
2020-03	Rhodamine (TRITC)	1.0 mg
2020-04	Alkaline Phosphatase (AP)	1.0 mL
2020-05	Horseradish Peroxidase (HRP)	1.0 mL
2020-07	Texas Red® (TXRD)	1.0 mg
2020-08	Biotin (BIOT)	1.0 mg
2020-09	R-phycoerythrin (PE)	0.5 mg
2020-30	Alexa Fluor® 488 (AF488)	1.0 mg
2020-31	Alexa Fluor® 647 (AF647)	1.0 mg
2020-32	Alexa Fluor® 555 (AF555)	1.0 mg



Human peripheral blood lymphocytes were stained with Goat Anti-Human IgM-PE (SB Cat. 2020-09) and Mouse Anti-Human CD19-FITC (SB Cat. No. 9340-02).

Description

Specificity	Reacts with the heavy chain of human IgM
Source	Pooled antisera from goats hyperimmunized with human IgM
Cross Adsorption	Human IgG and IgA; may react with IgM from other species
Purification	Affinity chromatography on human IgM covalently linked to agarose

Applications

Quality tested applications include –

ELISA^{1-3,15}
 FLISA
 FC¹⁶⁻¹⁸

Other referenced applications include –

ELISPOT^{2,4,5,11}
 IHC-FS^{6,7}
 IHC-PS^{8,9}
 ICC^{8,10,11}
 WB^{12,13}
 IP¹³⁻¹⁵
 Multiplex^{19,20}
 Stim²¹⁻²³
 Purification²⁴
 Depletion²⁵

Working Dilutions

ELISA	AP conjugate	1:2,000 – 1:4,000
	HRP conjugate	1:4,000 – 1:8,000
	BIOT conjugate	1:5,000 – 1:20,000

FLISA	FITC, TRITC, TXRD, AF488, and AF555 conjugates	1:100 – 1:400
	PE and AF647 conjugates	≤ 1 µg/mL

Flow Cytometry	FITC, BIOT, and AF488 conjugates	≤ 1 µg/10 ⁶ cells
	PE and AF647 conjugates	≤ 0.1 µg/10 ⁶ cells
	For flow cytometry, the suggested use of these reagents is in a final volume of 100 µL	

Other Applications Since applications vary, you should determine the optimum working dilution for the product that is appropriate for your specific need.

For Research Use Only. Not for Diagnostic or Therapeutic Use.

Handling and Storage

- The purified (UNLB) antibody is supplied as 1.0 mg purified immunoglobulin in 1.0 mL of borate buffered saline, pH 8.2. *No preservatives or amine-containing buffer salts added.* Store at 2-8°C.
- The fluorescein (FITC), rhodamine (TRITC), Texas Red® (TXRD), Alexa Fluor® 488 (AF488), Alexa Fluor® 555 (AF555), and Alexa Fluor® 647 (AF647) conjugates are supplied as 1.0 mg in 1.0 mL of PBS/NaN₃. Store at 2-8°C.
- The alkaline phosphatase (AP) conjugate is supplied as 1.0 mL of stock solution in 50 mM Tris/1 mM MgCl₂/50% glycerol, pH 8.0, containing NaN₃ as preservative. Store at 2-8°C or long-term at -20°C.
- The horseradish peroxidase (HRP) conjugate is supplied as 1.0 mL of stock solution in 50% glycerol/50% PBS, pH 7.4. *No preservative added.* Store at 2-8°C or long-term at -20°C.
- The biotin (BIOT) conjugate is supplied as 1.0 mg in 2.0 mL of PBS/NaN₃. Store at 2-8°C.
- The R-phycoerythrin (PE) conjugate is supplied as 0.5 mg in 1.0 mL of PBS/NaN₃ and a stabilizing agent. Store at 2-8°C. **Do not freeze!**
- Protect fluorochrome-conjugated forms from light. Reagents are stable for the period shown on the label if stored as directed.

Warning

Some reagents contain sodium azide. Please refer to product specific (M)SDS.

References

1. Houpt DC, Pfrommer GS, Young BJ, Larson TA, Kozel TR. Occurrences, immunoglobulin classes, and biological activities of antibodies in normal human serum that are reactive with *Cryptococcus neoformans* glucuronoxylomannan. *Infect Immun.* 1994;62:2857-64. (ELISA)
2. Traggiai E, Volpi S, Schena F, Gattorno M, Ferlito F, Moretta L, et al. Bone marrow-derived mesenchymal stem cells induce both polyclonal expansion and differentiation of B cells isolated from healthy donors and systemic lupus erythematosus patients. *Stem Cells.* 2008;26:562-9. (ELISA, ELISPOT)
3. Yang JS, Kang S, Yun C, Han SH. Evaluation of anticoagulants for serologic assays of cholera vaccination. *Clin Vaccine Immunol.* 2014;21:854-8. (ELISA)
4. Friman V, Quiding M, Czerkinsky C, Nordström I, Larsson L, Ericson D, et al. Intestinal and circulating antibody-forming cells in IgA-deficient individuals after oral cholera vaccination. *Clin Exp Immunol.* 1994;95:222-6. (ELISPOT)
5. Lynch RJ, Silva IA, Chen BJ, PUNCH JD, Cascalho M, Platt JL. Cryptic B cell response to renal transplantation. *Am J Transplant.* 2013;13:1713-23. (ELISPOT)
6. Vajdy M, Veazey RS, Knight HK, Lackner AA, Neutra MR. Differential effects of simian immunodeficiency virus infection on immune inductive and effector sites in the rectal mucosa of rhesus macaques. *Am J Pathol.* 2000;157:485-95. (IHC-FS)
7. Forshammar J, Isaksson S, Strid H, Stotzer P, Sjövall H, Simrén M, et al. A pilot study of colonic B cell pattern in irritable bowel syndrome. *Scand J Gastroenterol.* 2008;43:1461-6. (IHC-FS)
8. Solvason N, Kearney JF. The human fetal omentum: a site of B cell generation. *J Exp Med.* 1992;175:397-404. (IHC-PS, ICC)
9. Rowley AH, Shulman ST, Mask CA, Finn LS, Terai M, Baker SC, et al. IgA plasma cell infiltration of proximal respiratory tract, pancreas, kidney, and coronary artery in acute Kawasaki disease. *J Infect Dis.* 2000;182:1183-91. (IHC-PS)
10. Campana D, Farrant J, Inamdar N, Webster AD, Janosy G. Phenotypic features and proliferative activity of B cell progenitors in X-linked agammaglobulinemia. *J Immunol.* 1990;145:1675-80. (ICC)
11. Alwayn IP, Xu Y, Basker M, Wu C, Buhler L, Lambrigts D, et al. Effects of specific anti-B and/or anti-plasma cell immunotherapy on antibody production in baboons: depletion of CD20- and CD22-positive B cells does not result in significantly decreased production of anti-αGal antibody. *Xenotransplantation.* 2001;8:157-71. (ELISPOT, ICC)
12. Djoumerska IK, Tchorbanov AI, Donkova-Petrini VD, Pashov AD, Vassilev TL. Serum IgM, IgG and IgA block by F(ab')₂-dependent mechanism the binding of natural IgG autoantibodies from therapeutic immunoglobulin preparations to self-antigens. *Eur J Haematol.* 2005;74:101-10. (WB)
13. Santiago T, Kulemin SV, Reshetnikova ES, Chikavev NA, Volkova OY, Mechetina LV, et al. FCRLA is a resident endoplasmic reticulum protein that associates with intracellular Igs, IgM, IgG and IgA. *Int Immunol.* 2011;23:43-53. (IP, WB)
14. Pollok BA, Anker R, Eldridge P, Hendershot L, Levitt D. Molecular basis of the cell-surface expression of immunoglobulin μ chain without light chain in human B lymphocytes. *Proc Natl Acad Sci USA.* 1987;84:9199-203. (IP)
15. Minegishi Y, Conley ME. Negative selection at the pre-BCR checkpoint elicited by human μ heavy chains with unusual CDR3 regions. *Immunity.* 2001;14:631-41. (ELISA, IP)
16. Mongini PK, Blessinger C, Posnett DN, Rudich SM. Membrane IgD and membrane IgM differ in capacity to transduce inhibitory signals within the same human B cell clonal populations. *J Immunol.* 1989;143:1565-74. (FC)
17. Dobbs AK, Yang T, Farmer D, Kager L, Parolini O, Conley ME. Cutting edge: a hypomorphic mutation in Igβ (CD79b) in a patient with immunodeficiency and a leaky defect in B cell development. *J Immunol.* 2007;179:2055-9. (FC)
18. Azimzadeh AM, Byrne GW, Ezzelarab M, Welty E, Braileanu G, Cheng X, et al. Development of a consensus protocol to quantify primate anti-non-Gal xenoreactive antibodies using pig aortic endothelial cells. *Xenotransplantation.* 2014;21:555-66. (FC)
19. Tomaras GD, Yates NL, Liu P, Qin L, Fouda GG, Chavez LL, et al. Initial B-cell responses to transmitted human immunodeficiency virus type 1: virion-binding immunoglobulin M (IgM) and IgG antibodies followed by plasma anti-gp41 antibodies with ineffective control of initial viremia. *J Virol.* 2008;82:12449-63. (Multiplex)
20. Pochecheva T, Chinarev A, Bovin N, Fedier A, Jacob F, Heinzelmann-Schwarz V. PEGylation of microbead surfaces reduces unspecific antibody binding in glycan-based suspension array. *J Immunol Methods.* 2014;412:42-52. (Multiplex)
21. Blaeser F, Ho N, Prywes R, Chatila TA. Ca²⁺-dependent gene expression mediated by MEF2 transcription factors. *J Biol Chem.* 2000;275:197-209. (Stim)
22. Battle A, Papadopoulou V, Gomes AR, Willimott S, Melo JV, Naresh K, et al. CD40 and B-cell receptor signalling induce MAPK family members that can either induce or repress Bcl-6 expression. *Mol Immunol.* 2009;46:1727-35. (Stim)
23. Woyach JA, Bojnik E, Ruppert AS, Stefanovski MR, Goettl VM, Smucker KA, et al. Bruton's tyrosine kinase (BTK) function is important to the development and expansion of chronic lymphocytic leukemia (CLL). *Blood.* 2014;123:1207-13. (Stim)
24. Janoff EN, Fasching C, Orenstein JM, Rubins JB, Opstad NL, Dalmasso AP. Killing of *Streptococcus pneumoniae* by capsular polysaccharide-specific polymeric IgA, complement, and phagocytes. *J Clin Invest.* 1999;104:1139-47. (Purification)
25. Palaia JM, McConnell M, Achenbach JE, Gustafson CE, Stoermer KA, Nolan M, et al. Neutralization of HIV subtypes A and D by breast milk IgG from women with HIV infection in Uganda. *J Infect.* 2014;68:264-72. (Depletion)

Texas Red® is a registered trademark of Molecular Probes, Inc.

Alexa Fluor® 488, 647, and 555 are provided under an intellectual property license from Life Technologies Corporation. The purchase of this product conveys to the buyer the non-transferable right to use the purchased amount of the product and components of the product in research conducted by the buyer (whether the buyer is an academic or for-profit entity). The buyer cannot sell or otherwise transfer (a) this product (b) its components or (c) materials made using this product or its components to a third party or otherwise use this product or its components or materials made using this product or its components for Commercial Purposes. Commercial Purposes means any activity by a party for consideration and may include, but is not limited to: (1) use of the product or its components in manufacturing; (2) use of the product or its components to provide a service, information, or data; (3) use of the product or its components for therapeutic, diagnostic or prophylactic purposes; or (4) resale of the product or its components, whether or not such product or its components are used for use in research. For information on purchasing a license to this product for any other use, contact Life Technologies Corporation, 5791 Van Allen Way, Carlsbad, CA 92008 USA or outlicensing@lifetech.com.

TB2020

11-Jan-17

Corporate Offices: 160 Oxmoor Blvd • Birmingham, AL 35209 • USA Mailing Address: P.O. Box 26221 • Birmingham, AL 35260 • USA

Tel: 205.945.1774 • U.S. and Canada: 800.722.2255 • Fax: 205.945.8768

Email: info@southernbiotech.com • Website: www.southernbiotech.com