

Datasheet: MCA1710C

Description:	MOUSE ANTI HUMAN CD20:RPE-Cy5
Specificity:	CD20
Format:	RPE-CY5
Product Type:	Monoclonal Antibody
Clone:	2H7
Isotype:	IgG2b
Quantity:	100 TESTS/0.5ml

Product Details

Applications

This product has been reported to work in the following applications. This information is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information. For general protocol recommendations, please visit www.bio-rad-antibodies.com/protocols.

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry	▪			Neat

Where this product has not been tested for use in a particular technique this does not necessarily exclude its use in such procedures. Suggested working dilutions are given as a guide only. It is recommended that the user titrates the product for use in their own system using appropriate negative/positive controls.

Target Species	Human		
Species Cross Reactivity	Reacts with: Rhesus Monkey N.B. Antibody reactivity and working conditions may vary between species.		
Product Form	Purified IgG conjugated to RPE-Cy5 - liquid		
Max Ex/Em	Fluorophore RPE-Cy5 488nm laser	Excitation Max (nm) 496	Emission Max (nm) 667
Preparation	Purified IgG prepared by affinity chromatography		
Buffer Solution	Phosphate buffered saline		
Preservative	0.09% Sodium Azide (NaN ₃)		
Stabilisers	0.2% Bovine Serum Albumin		
External Database Links	UniProt: P11836 Related reagents		
	Entrez Gene: 931 MS4A1 Related reagents		

Synonyms	CD20
Specificity	<p>Mouse anti Human CD20 antibody, clone 2H7 recognizes the human CD20 cell surface antigen, a 33-37 kDa non-glycosylated phosphoprotein.</p> <p>The CD20 antigen is expressed during pre-B-cell development. It is present on both resting and activated B-cells but is lost prior to terminal B-cell differentiation into plasma cells.</p> <p>The epitope recognized by clone 2H7 has been mapped to the following sequence found in the large extracellular loop of human CD20: YNCEPANPSEKNSPST. Furthermore it appears that Mouse anti Human CD20 antibody, clone 2H7 only recognizes human CD20 in its native oligomeric form (Polyak et al. 2002).</p>
Flow Cytometry	Use 5ul of the suggested working dilution to label 10 ⁶ cells or cells or 100ul whole blood.
References	<ol style="list-style-type: none"> Lifson, J.D. <i>et al.</i> (2001) Role of CD8(+) lymphocytes in control of simian immunodeficiency virus infection and resistance to rechallenge after transient early antiretroviral treatment. J Virol. 75 (21): 10187-99. Cragg, M.S. <i>et al.</i> (2003) Complement-mediated lysis by anti-CD20 mAb correlates with segregation into lipid rafts. Blood. 101: 1045-52. Jaramillo, M.C. <i>et al.</i> (2009) Increased manganese superoxide dismutase expression or treatment with manganese porphyrin potentiates dexamethasone-induced apoptosis in lymphoma cells. Cancer Res. 69: 5450-7. Teeling, J.L. <i>et al.</i> (2006) The biological activity of human CD20 monoclonal antibodies is linked to unique epitopes on CD20. J Immunol. 177 (1): 362-71. Chan, H.T. <i>et al.</i> (2003) CD20-induced lymphoma cell death is independent of both caspases and its redistribution into triton X-100 insoluble membrane rafts. Cancer Res. 63: 5480-9. Greig, B. <i>et al.</i> (2014) Stabilization media increases recovery in paucicellular cerebrospinal fluid specimens submitted for flow cytometry testing. Cytometry B Clin Cytom. 86: 135-8. van den Akker, E. <i>et al.</i> (2010) The majority of the in vitro erythroid expansion potential resides in CD34(-) cells, outweighing the contribution of CD34(+) cells and significantly increasing the erythroblast yield from peripheral blood samples. Haematologica. 95: 1594-8. Polyak, M.J. <i>et al.</i> (2002) Alanine-170 and proline-172 are critical determinants for extracellular CD20 epitopes; heterogeneity in the fine specificity of CD20 monoclonal antibodies is defined by additional requirements imposed by both amino acid sequence and quaternary structure. Blood. 1:99:3256-62. Jaramillo, M.C. <i>et al.</i> (2015) Manganese (III) meso-tetrakis N-ethylpyridinium-2-yl porphyrin acts as a pro-oxidant to inhibit electron transport chain proteins, modulate bioenergetics, and enhance the response to chemotherapy in lymphoma cells. Free Radic Biol Med. 83: 89-100. Kohler, S.L. <i>et al.</i> (2016) Germinal Center T Follicular Helper Cells Are Highly Permissive to HIV-1 and Alter Their Phenotype during Virus Replication. J Immunol. 196 (6): 2711-22. Grobárová V <i>et al.</i> (2016) Quambalarine B, a Secondary Metabolite from <i>Quambalaria cyanescens</i> with Potential Anticancer Properties. J Nat Prod. 79 (9): 2304-14. Cecchinato, V. <i>et al.</i> (2017) Impairment of CCR6+ and CXCR3+ Th Cell Migration in HIV-1 Infection Is Rescued by Modulating Actin Polymerization. J Immunol. 198 (1): 184-195. Popov, J. <i>et al.</i> (2017) Unique therapeutic properties and preparation methodology of multivalent rituximab-lipid nanoparticles. Eur J Pharm Biopharm. 117: 256-69.
Further Reading	<ol style="list-style-type: none"> Hultin, L.E. <i>et al.</i> (1993) CD20 (pan B cell) antigen is expressed at a low level on a subpopulation of human T lymphocytes. Cytometry 14: 196.
Storage	Store at +4°C. DO NOT FREEZE.

This product should be stored undiluted. This product is photosensitive and should be protected from light. Should this product contain a precipitate we recommend microcentrifugation before use.

Shelf Life	12 months from date of despatch.
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Health And Safety Information	Material Safety Datasheet documentation #10041 available at: 10041: https://www.bio-rad-antibodies.com/uploads/MSDS/10041.pdf
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Regulatory	For research purposes only
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Related Products

Recommended Negative Controls

[MOUSE IgG2b NEGATIVE CONTROL:RPE-Cy5 \(MCA691C\)](#)

Recommended Useful Reagents

[HUMAN SEROBLOCK \(BUF070A\)](#)

[HUMAN SEROBLOCK \(BUF070B\)](#)

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