## Datasheet: MCA1710SBUV795 BATCH NUMBER 100006242

Description:	MOUSE ANTI HUMAN CD20:StarBright UltraViolet 795			
Specificity:	CD20			
Format:	StarBright UltraViolet 795			
Product Type:	Monoclonal Antibody			
Clone:	2H7			
Isotype:	lgG2b			
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 <u>www.bio-</u> rad-antibodies.com/protocols.					
		Yes No	Not Determined	Suggested Dilution		
	Flow Cytometry	-		Neat		
	Where this product ha	as not been tested	for use in a particular tec	hnique this does not		
	necessarily exclude it	s use in such proc	edures. Suggested worki	ng 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 <b>N.B.</b> Antibody reactivity and working conditions may vary between species. Cross reactivity is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information.					
Product Form	Purified IgG conjugated to StarBright UltraViolet 795 - liquid					
Max Ex/Em	Fluorophore	Excitation Max (n	m) Emission Max (nm)			
	StarBright UltraViolet 795	340	792			
Preparation	Purified IgG prepared by affinity chromatography on Protein G from tissue culture supernatant					

Buffer Solution	Phosphate buffered saline
Preservative Stabilisers	0.09% Sodium Azide (NaN <sub>3</sub> ) 1% Bovine Serum Albumin 0.1% Pluronic F68 0.1% PEG 3350 0.05% Tween 20
External Database Links	UniProt: <u>P11836</u> <u>Related reagents</u> Entrez Gene: <u>931</u> MS4A1 <u>Related reagents</u>
Synonyms	CD20
Specificity	Mouse anti Human CD20 antibody, clone 2H7 recognizes the human CD20 cell surface antigen, a 33-37 kDa non-glycosylated phosphoprotein.
	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. 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 <i>et al.</i> 2002).
Flow Cytometry	Use 5ul of the suggested working dilution to label 10 <sup>6</sup> cells in 100ul. Best practices suggest a 5 minutes centrifugation at 6,000g prior to sample application.
References	<ol> <li>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. <u>Cancer Res.</u> <u>63: 5480-9.</u></li> <li>Cragg, M.S. <i>et al.</i> (2003) Complement-mediated lysis by anti-CD20 mAb correlates with segregation into lipid rafts. <u>Blood. 101: 1045-52.</u></li> <li>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. <u>Cancer Res. 69: 5450-7.</u></li> <li>Teeling, J.L. <i>et al.</i> (2006) The biological activity of human CD20 monoclonal antibodies is linked to unique epitopes on CD20. <u>J Immunol. 177 (1): 362-71.</u></li> <li>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. <u>Blood. 1;99:3256-62.</u></li> <li>Greig, B. <i>et al.</i> (2014) Stabilization media increases recovery in paucicellular cerebrospinal fluid specimens submitted for flow cytometry testing. <u>Cytometry B Clin</u></li> </ol>

	<ul> <li><u>Cytom. 86: 135-8.</u></li> <li>7. 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. <u>Haematologica. 95:</u> 1594-8.</li> <li>8. 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. <u>Free Radic Biol Med. 83: 89-100.</u></li> <li>9. 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. <u>J Immunol. 198 (1):</u> 184-195.</li> <li>10. 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. <u>J Immunol. 196</u></li> </ul>		
	<ul> <li>(6): 2711-22.</li> <li>11. 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.</li> <li>12. 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.</li> <li>13. Sieg, M. <i>et al.</i> (2019) A New Genotype of Feline Morbillivirus Infects Primary Cells of the Lung, Kidney, Brain and Peripheral Blood. Viruses. 11 (2) Feb 09 [Epub ahead of print].</li> </ul>		
Storage	Store at +4°C. DO NOT FREEZE. This product should be stored undiluted.		
Guarantee	12 months from date of despatch		
Acknowledgements	This product is covered by U.S. Patent No. 10,150,841 and related U.S. and foreign counterparts		
Health And Safety Information	Material Safety Datasheet documentation #20471 available at: https://www.bio-rad-antibodies.com/SDS/MCA1710SBUV795 20471		
Regulatory	For research purposes only		

## **Related Products**

## **Recommended Useful Reagents**

HUMAN SEROBLOCK (BUF070A) HUMAN SEROBLOCK (BUF070B)

North & South	Tel: +1 800 265 7376	Worldwide	Tel: +44 (0)1865 852 700	Europe	Tel: +49 (0) 89 8090 95 21
America	Fax: +1 919 878 3751		Fax: +44 (0)1865 852 739		Fax: +49 (0) 89 8090 95 50
	Email: antibody_sales_us@bio-r	ad.com	Email: antibody_sales_uk@bio-ra	ad.com	Email: antibody_sales_de@bio-rad.com

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