

## Datasheet: MCA1710SBV670

<b>Description:</b>	MOUSE ANTI HUMAN CD20:StarBright Violet 670
<b>Specificity:</b>	CD20
<b>Format:</b>	StarBright Violet 670
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	2H7
<b>Isotype:</b>	IgG2b
<b>Quantity:</b>	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](http://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. 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 Violet 670 - liquid

### Max Ex/Em

Fluorophore	Excitation Max (nm)	Emission Max (nm)
StarBright Violet 670	401	667

### Preparation

Purified IgG prepared by affinity chromatography on Protein G from tissue culture supernatant

### Buffer Solution

Phosphate buffered saline

<b>Preservative</b>	0.09% Sodium Azide (NaN <sub>3</sub> )
<b>Stabilisers</b>	1% Bovine Serum Albumin 0.1% Pluronic F68 0.1% PEG 3350 0.05% Tween 20
<b>Approx. Protein Concentrations</b>	For information on the concentration of our StarBright Dye conjugated reagents please visit our <a href="#">FAQ</a> page.
<b>External Database Links</b>	<p><b>UniProt:</b>  <a href="#">P11836</a>    <a href="#">Related reagents</a></p> <p><b>Entrez Gene:</b>  <a href="#">931</a>    MS4A1    <a href="#">Related reagents</a></p>
<b>Synonyms</b>	CD20
<b>Specificity</b>	<p><b>Mouse anti Human CD20 antibody, clone 2H7</b> 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 (<a href="#">Polyak et al. 2002</a>).</p>
<b>Flow Cytometry</b>	Use 5µl of the suggested working dilution to label 10 <sup>6</sup> cells in 100µl. Best practices suggest a 5 minutes centrifugation at 6,000g prior to sample application.
<b>References</b>	<ol style="list-style-type: none"> <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. <a href="#">Cancer Res. 63: 5480-9.</a></li> <li>Cragg, M.S. <i>et al.</i> (2003) Complement-mediated lysis by anti-CD20 mAb correlates with segregation into lipid rafts. <a href="#">Blood. 101: 1045-52.</a></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. <a href="#">Cancer Res. 69: 5450-7.</a></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. <a href="#">J Immunol. 177 (1): 362-71.</a></li> <li>Polyak, M.J. &amp; Deans, J.P. (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. <a href="#">Blood. 99 (9): 3256-62.</a></li> <li>Greig, B. <i>et al.</i> (2014) Stabilization media increases recovery in paucicellular</li> </ol>

cerebrospinal fluid specimens submitted for flow cytometry testing. [Cytometry B Clin Cytom. 86: 135-8.](#)

7. van den Akker, E. *et al.* (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.](#)

8. Jaramillo, M.C. *et al.* (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.](#)

9. Cecchinato, V. *et al.* (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.](#)

10. Kohler, S.L. *et al.* (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.](#)

11. Grobárová V *et al.* (2016) Quambalarine B, a Secondary Metabolite from *Quambalaria cyanescens* with Potential Anticancer Properties. [J Nat Prod. 79 \(9\): 2304-14.](#)

12. Popov, J. *et al.* (2017) Unique therapeutic properties and preparation methodology of multivalent rituximab-lipid nanoparticles. [Eur J Pharm Biopharm. 117: 256-69.](#)

13. Sieg, M. *et al.* (2019) A New Genotype of Feline Morbillivirus Infects Primary Cells of the Lung, Kidney, Brain and Peripheral Blood. [Viruses. 11 \(2\): 146.](#)

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**Storage**

Store at +4°C. DO NOT FREEZE.  
This product should be stored undiluted.

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**Guarantee**

12 months from date of despatch

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**Acknowledgements**

This product is covered by U.S. Patent No. 10,150,841 and related U.S. and foreign counterparts

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**Health And Safety Information**

Material Safety Datasheet documentation #20471 available at:  
<https://www.bio-rad-antibodies.com/SDS/MCA1710SBV670>  
20471

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**Regulatory**

For research purposes only

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## Related Products

### Recommended Useful Reagents

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

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

**North & South America**

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