

## Datasheet: MCA1738SBV670

<b>Description:</b>	MOUSE ANTI HUMAN CD31:StarBright Violet 670
<b>Specificity:</b>	CD31
<b>Other names:</b>	PECAM-1
<b>Format:</b>	StarBright Violet 670
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	WM59
<b>Isotype:</b>	IgG1
<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: Cynomolgus monkey, 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 A from tissue culture supernatant

#### Buffer Solution

Phosphate buffered saline

<b>Preservative Stabilisers</b>	0.09% Sodium Azide (NaN <sub>3</sub> ) 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="#">P16284</a>    <a href="#">Related reagents</a></p> <p><b>Entrez Gene:</b> <a href="#">5175</a>    PECAM1    <a href="#">Related reagents</a></p>
<b>Specificity</b>	<p><b>Mouse anti Human CD31 monoclonal antibody, clone WM59</b> recognizes the human CD31 antigen, a ~130 kDa single pass type I transmembrane glycoprotein bearing six <a href="#">C2 immunoglobulin domains</a>. CD31 is expressed by all continuous endothelia including arteries, veins and non-sinusoidal capillaries, platelets, granulocytes and some lymphocytes. CD31 is not expressed by discontinuous endothelia such as hepatic sinusoids and splenic red pulp (<a href="#">Muller et al. 1989</a>). CD31 is also known as PECAM-1.</p> <p>The binding epitope for mouse anti human CD31, clone WM59 has been mapped to the Ig-like domain 2 (<a href="#">Fawcett et al. 1995</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>1. Paul, G. <i>et al.</i> (2012) The adult human brain harbors multipotent perivascular mesenchymal stem cells. <a href="#">PLoS One. 7: e35577.</a></li> <li>2. Urquhart, P. <i>et al.</i> (2007) Carbon monoxide-releasing molecules modulate leukocyte-endothelial interactions under flow. <a href="#">J Pharmacol Exp Ther. 321 (2): 656-62.</a></li> <li>3. Reedquist, K.A. <i>et al.</i> (2000) The small GTPase, Rap1, mediates CD31-induced integrin adhesion. <a href="#">J Cell Biol. 148: 1151-8.</a></li> <li>4. Vernon-Wilson, E.F. <i>et al.</i> (2007) CD31 delays phagocyte membrane repolarization to promote efficient binding of apoptotic cells. <a href="#">J Leukoc Biol. 82: 1278-88.</a></li> <li>5. Hilbe W <i>et al.</i> (2003) Immunohistochemical typing of non-small cell lung cancer on cryostat sections: correlation with clinical parameters and prognosis. <a href="#">J Clin Pathol. 56 (10): 736-41.</a></li> <li>6. Stein, A. <i>et al.</i> (2010) Local erythropoietin and endothelial progenitor cells improve regional cardiac function in acute myocardial infarction. <a href="#">BMC Cardiovasc Disord. Sep; 10:43.</a></li> <li>7. Woollard, K.J. <i>et al.</i> (2002) Direct modulatory effect of C-reactive protein on primary human monocyte adhesion to human endothelial cells. <a href="#">Clin Exp Immunol. 130: 256-62.</a></li> <li>8. Theberge, A.B. <i>et al.</i> (2015) Microfluidic multiculture assay to analyze biomolecular signaling in angiogenesis. <a href="#">Anal Chem. 87 (6): 3239-46.</a></li> <li>9. Hilbe W <i>et al.</i> (2004) CD133 positive endothelial progenitor cells contribute to the</li> </ol>

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<b>Further Reading</b>	1. DeLisser, H.M. <i>et al.</i> (1994) Molecular and functional aspects of PECAM-1/CD31. <a href="#">Immunol Today. 15 (10): 490-5.</a>
<b>Storage</b>	Store at +4°C. DO NOT FREEZE. This product should be stored undiluted.
<b>Guarantee</b>	12 months from date of despatch
<b>Acknowledgements</b>	This product is covered by U.S. Patent No. 10,150,841 and related U.S. and foreign counterparts
<b>Health And Safety Information</b>	Material Safety Datasheet documentation #20471 available at: <a href="https://www.bio-rad-antibodies.com/SDS/MCA1738SBV670">https://www.bio-rad-antibodies.com/SDS/MCA1738SBV670</a> 20471
<b>Regulatory</b>	For research purposes only

## Related Products

### Recommended Useful Reagents

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

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

<b>North &amp; South America</b>	Tel: +1 800 265 7376 Fax: +1 919 878 3751 Email: <a href="mailto:antibody_sales_us@bio-rad.com">antibody_sales_us@bio-rad.com</a>	<b>Worldwide</b>	Tel: +44 (0)1865 852 700 Fax: +44 (0)1865 852 739 Email: <a href="mailto:antibody_sales_uk@bio-rad.com">antibody_sales_uk@bio-rad.com</a>	<b>Europe</b>	Tel: +49 (0) 89 8090 95 21 Fax: +49 (0) 89 8090 95 50 Email: <a href="mailto:antibody_sales_de@bio-rad.com">antibody_sales_de@bio-rad.com</a>
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