Datasheet: MCA1738PE

Description:	MOUSE ANTI HUMAN CD31:RPE
Specificity:	CD31
Other names:	PECAM-1
Format:	RPE
Product Type:	Monoclonal Antibody
Clone:	WM59
Isotype:	IgG1
Quantity:	100 TESTS

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 - 1/2

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 R. Phycoerythrin (RPE) - lyophilized

Reconstitution

Reconstitute with 1 ml distilled water

Max Ex/Em

Fluorophore	Excitation Max (nm)	Emission Max (nm)
RPE 488nm laser	496	578

Preparation

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

Buffer Solution	Phosphate buffered saline
Preservative Stabilisers	0.09% sodium azide (NaN_3) 1% bovine serum albumin 5% sucrose
External Database Links	**UniProt:** P16284 Related reagents **Entrez Gene:** 5175 PECAM1 Related reagents
RRID	AB_322883
Specificity	**Mouse anti Human CD31 monoclonal antibody, clone WM59** recognizes the human CD31 antigen, a ~130 kDa single pass type I transmembrane glycoprotein bearing six C2 immunoglobulin domains. 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 (Muller *et al.* 1989).CD31 is also known as PECAM-1. The binding epitope for mouse anti human CD31, clone WM59 has been mapped to the Ig-like domain 2 (Fawcett *et al.* 1995).
Flow Cytometry	Use 10µl of the suggested working dilution to label 10^6 cells or 100µl whole blood
References	1. Paul, G. *et al.* (2012) The adult human brain harbors multipotent perivascular mesenchymal stem cells. PLoS One. 7: e35577. 2. Urquhart, P. *et al.* (2007) Carbon monoxide-releasing molecules modulate leukocyte-endothelial interactions under flow. J Pharmacol Exp Ther. 321 (2): 656-62. 3. Reedquist, K.A. *et al.* (2000) The small GTPase, Rap1, mediates CD31-induced integrin adhesion. J Cell Biol. 148: 1151-8. 4. Vernon-Wilson, E.F. *et al.* (2007) CD31 delays phagocyte membrane repolarization to promote efficient binding of apoptotic cells. J Leukoc Biol. 82: 1278-88. 5. Hilbe W *et al.* (2003) Immunohistochemical typing of non-small cell lung cancer on cryostat sections: correlation with clinical parameters and prognosis. J Clin Pathol. 56 (10): 736-41. 6. Stein, A. *et al.* (2010) Local erythropoietin and endothelial progenitor cells improve regional cardiac function in acute myocardial infarction. BMC Cardiovasc Disord. Sep; 10:43. 7. Woollard, K.J. *et al.* (2002) Direct modulatory effect of C-reactive protein on primary human monocyte adhesion to human endothelial cells. Clin Exp Immunol. 130: 256-62. 8. Theberge, A.B. *et al.* (2015) Microfluidic multiculture assay to analyze biomolecular signaling in angiogenesis. Anal Chem. 87 (6): 3239-46. 9. Hilbe W *et al.* (2004) CD133 positive endothelial progenitor cells contribute to the tumour vasculature in non-small cell lung cancer. J Clin Pathol. 57 (9): 965-9. 10. Palakkan, A.A. *et al.* (2015) Polarisation and functional characterisation of hepatocytes

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Further Reading

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Storage	Prior to reconstitution store at +4°C. Following reconstitution 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.
Guarantee	12 months from date of despatch
Health And Safety Information	Material Safety Datasheet documentation #20487 available at: https://www.bio-rad-antibodies.com/SDS/MCA1738PE 20487
Regulatory	For research purposes only

Related Products

Recommended Negative Controls

MOUSE IgG1 NEGATIVE CONTROL:RPE (MCA928PE)

Recommended Useful Reagents

HUMAN SEROBLOCK (BUF070A)
HUMAN SEROBLOCK (BUF070B)

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

To find a batch/lot specific datasheet for this product, please use our online search tool at: bio-rad-antibodies.com/datasheets

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