

# Datasheet: MCA1825

**BATCH NUMBER 158693**

<b>Description:</b>	RAT ANTI MOUSE CD34
<b>Specificity:</b>	CD34
<b>Format:</b>	Purified
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	MEC14.7
<b>Isotype:</b>	IgG2a
<b>Quantity:</b>	0.25 mg

## 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	▪			1/10 - 1/20
Immunohistology - Frozen			▪	
Immunohistology - Paraffin	▪			1/20 - 1/200
ELISA			▪	
Immunoprecipitation	▪			2ug/ml - 10ug/ml
Western Blotting			▪	

Where this antibody 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 antibody for use in their own system using appropriate negative/positive controls.

<b>Target Species</b>	Mouse
<b>Product Form</b>	Purified IgG - liquid
<b>Preparation</b>	Purified IgG prepared by affinity chromatography on Protein G from tissue culture supernatant
<b>Buffer Solution</b>	Phosphate buffered saline
<b>Preservative Stabilisers</b>	0.09% Sodium Azide
<b>Carrier Free</b>	Yes

<b>Approx. Protein Concentrations</b>	IgG concentration 1.0 mg/ml
<b>Immunogen</b>	T-end.1, a pMT transformed endothelial cell line.
<b>External Database Links</b>	<p><b>UniProt:</b>  <a href="#">Q64314</a>    <a href="#">Related reagents</a></p> <p><b>Entrez Gene:</b>  <a href="#">12490</a>   Cd34   <a href="#">Related reagents</a></p>
<b>RRID</b>	AB_322537
<b>Specificity</b>	<p><b>Rat anti Mouse CD34 antibody, clone MEC14.7</b> recognizes the murine CD34 cell surface antigen, expressed by endothelial cells and by hematopoietic stem cells. Rat anti Mouse CD34 antibody, clone MEC14.7 recognizes a neuraminidase sensitive epitope. As in the human system, CD34 antibodies in the mouse demonstrate slightly different staining patterns depending on their fine specificity. Rat anti Mouse CD34 antibody, clone MEC14.7 appears to recognize a subset of the stem cell population recognized by clone RAM34, and it is thought that this is due to differences in the epitope recognized by the two antibodies.</p>
<b>Flow Cytometry</b>	Use 10ul of the suggested working dilution to label 10 <sup>6</sup> cells in 100ul.
<b>References</b>	<ol style="list-style-type: none"> <li>1. Winding, B. <i>et al.</i> (2002) Synthetic matrix metalloproteinase inhibitors inhibit growth of established breast cancer osteolytic lesions and prolong survival in mice. <a href="#">Clin Cancer Res. 8 (6): 1932-9.</a></li> <li>2. Nguyen, L. <i>et al.</i> (2012) Spatial morphological and molecular differences within solid tumors may contribute to the failure of vascular disruptive agent treatments. <a href="#">BMC Cancer. 12: 522.</a></li> <li>3. Morison, N.B. <i>et al.</i> (2007) The long-term actions of etonogestrel and levonorgestrel on decidualized and non-decidualized endometrium in a mouse model mimic some effects of progestogen-only contraceptives in women. <a href="#">Reproduction. 133: 309-21.</a></li> <li>4. Chen, L. <i>et al.</i> (2010) Roles of tetrahydrobiopterin in promoting tumor angiogenesis. <a href="#">Am J Pathol. 177: 2671-80.</a></li> <li>5. Ager, E.I. <i>et al.</i> (2010) Targeting the angiotensin II type 2 receptor (AT2R) in colorectal liver metastases. <a href="#">Cancer Cell Int. 10: 19</a></li> <li>6. Chabot, S. <i>et al.</i> (2011) A novel antiangiogenic and vascular normalization therapy targeted against human CD160 receptor. <a href="#">J Exp Med. 208: 973-86.</a></li> <li>7. Chen, J. <i>et al.</i> (2011) Circulating endothelial progenitor cells and cellular membrane microparticles in db/db diabetic mouse: possible implications in cerebral ischemic damage. <a href="#">Am J Physiol Endocrinol Metab. 2011 Jul;301(1):E62-71.</a></li> <li>8. Chen, J. <i>et al.</i> (2012) Transfusion of CXCR4-primed endothelial progenitor cells reduces cerebral ischemic damage and promotes repair in db/db diabetic mice. <a href="#">PLoS One. 7 (11): e50105.</a></li> <li>9. O uji, Y. &amp; Yoshikawa, M. (2016) Maintenance of Skin Epithelial Stem Cells by Wnt-3a In Vitro. <a href="#">Methods Mol Biol. 1516: 279-88.</a></li> </ol>

10. Nguyen, L. *et al.* (2016) Vascular disruptive agent OXi4503 and anti-angiogenic agent Sunitinib combination treatment prolong survival of mice with CRC liver metastasis. [BMC Cancer. 16 \(1\): 533.](#)
11. Vávrová, J. *et al.* (2012) Irradiated stem cells and ageing of the haematopoietic system. [Radiat Environ Biophys. 51 \(2\): 205-13.](#)
12. DaCosta, P.L.N. *et al.* (2018) The kallikrein-Kinin system modulates the progression of colorectal liver metastases in a mouse model. [BMC Cancer. 18 \(1\): 382.](#)
13. Danielyan, L. *et al.* (2020) Cell motility and migration as determinants of stem cell efficacy [EBioMedicine. 60:102989.](#)
14. Rackham, C.L. *et al.* (2013) Maintenance of islet morphology is beneficial for transplantation outcome in diabetic mice. [PLoS One. 8 \(2\): e57844.](#)
15. Fruchon, S. *et al.* (2012) Involvement of the Syk-mTOR pathway in follicular lymphoma cell invasion and angiogenesis. [Leukemia. 26 \(4\): 795-805.](#)
16. Zhu, C. *et al.* (2020) Antinociceptive effect of intrathecal injection of miR-9-5p modified mouse bone marrow mesenchymal stem cells on a mouse model of bone cancer pain. [J Neuroinflammation. 17 \(1\): 85.](#)
17. Ouji, Y. *et al.* (2022) Impaired differentiation potential of CD34-positive cells derived from mouse hair follicles after long-term culture. [Sci Rep. 12 \(1\): 11011.](#)

<b>Storage</b>	<p>This product is shipped at ambient temperature. It is recommended to aliquot and store at -20°C on receipt. When thawed, aliquot the sample as needed. Keep aliquots at 2-8°C for short term use (up to 4 weeks) and store the remaining aliquots at -20°C.</p> <p>Avoid repeated freezing and thawing as this may denature the antibody. Storage in frost-free freezers is not recommended.</p>
<b>Guarantee</b>	12 months from date of despatch
<b>Health And Safety Information</b>	<p>Material Safety Datasheet documentation #10040 available at: <a href="https://www.bio-rad-antibodies.com/SDS/MCA1825">https://www.bio-rad-antibodies.com/SDS/MCA1825</a></p> <p>10040</p>
<b>Regulatory</b>	For research purposes only

## Related Products

### Recommended Secondary Antibodies

Rabbit Anti Rat IgG (STAR16...)	<a href="#">DyLight®800</a>
Rabbit Anti Rat IgG (STAR17...)	<a href="#">FITC</a>
Goat Anti Rat IgG (STAR72...)	<a href="#">HRP</a>
Goat Anti Rat IgG (STAR69...)	<a href="#">FITC</a>
Goat Anti Rat IgG (STAR73...)	<a href="#">RPE</a>
Rabbit Anti Rat IgG (STAR21...)	<a href="#">HRP</a>
Goat Anti Rat IgG (MOUSE ADSORBED) (STAR71...)	<a href="#">DyLight®550</a> , <a href="#">DyLight®650</a> , <a href="#">DyLight®800</a>
Goat Anti Rat IgG (STAR131...)	<a href="#">Alk. Phos.</a> , <a href="#">Biotin</a>

### Recommended Negative Controls

[RAT IgG2a NEGATIVE CONTROL \(MCA1212\)](#)

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

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