

## Datasheet: MCA547B

<b>Description:</b>	MOUSE ANTI HUMAN CD34:Biotin
<b>Specificity:</b>	CD34 CLASS II
<b>Format:</b>	Biotin
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	QBEND/10
<b>Isotype:</b>	IgG1
<b>Quantity:</b>	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](http://www.bio-rad-antibodies.com/protocols).

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry	▪			Neat

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.

### Target Species

Human

### Species Cross Reactivity

Reacts with: Cynomolgus monkey, Rhesus Monkey

Does not react with: Bovine, Sheep, Rat, Dog

**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 Biotin - liquid

### Preparation

Antibody purified from tissue culture supernatant

### Buffer Solution

Phosphate buffered saline

### Preservative Stabilisers

0.09% Sodium Azide

1% Bovine Serum Albumin

<b>Approx. Protein Concentrations</b>	IgG concentration 0.1mg/ml
<b>Immunogen</b>	Human endothelial cell membrane vesicles.
<b>External Database Links</b>	<p><b>UniProt:</b>  <a href="#">P28906</a>    <a href="#">Related reagents</a></p> <p><b>Entrez Gene:</b>  <a href="#">947</a>    CD34    <a href="#">Related reagents</a></p>
<b>RRID</b>	AB_2074373
<b>Fusion Partners</b>	Spleen cells from immunized NZB mice were fused with cells of the mouse NSO myeloma cell line.
<b>Specificity</b>	<p><b>Mouse anti Human CD34 antibody, clone QBEND/10</b> recognizes the human CD34 antigen, also known as Hematopoietic progenitor cell antigen CD34. Human CD34 is 385 amino acid polypeptide containing a 31 residue signal peptide, cleaved to yield the ~110kDa mature form of CD34, a sialomucin single pass transmembrane glycoprotein. CD34 is expressed by stem cells (<a href="#">Kaufman et al. 2001</a>) and small vessel endothelium (<a href="#">Ramani et al. 1990</a>)</p> <p>Human CD34 exists as two isoforms, the full length form described here and a truncated isoform lacking the carboxy-terminal of the intracellular domain and containing some alternative sequence in the remaining intracellular region. Antibody binding epitopes on human CD34 have been classified according to their resistance to enzymatic degradation and grouped together using this and competitive binding assays (<a href="#">Lanza et al. 1999</a>). Mouse anti Human CD34 antibody, clone QBEND/10 has been classified as binding to the class II epitope, resistant to neuraminidase treatment but sensitive to both glycoprotease and chymopapain digestion. Mouse anti Human CD34 antibody, clone QBEND/10 binds to a different eoptope to Mouse anti Human CD34, clone 581 which binds to the class III epitope resistant to all three enzymzatic treatments (Nishio <i>et al.</i> 1996 In Leukocyte Typing VI). Clone QBEND 10 is expected to bind to both isoforms of human CD34 as it's binding epitope has been mapped to the extracellular domain between amino acids 43 and 49 by peptide microarray analysis (Jones <i>et al.</i> 1996, in Leukocyte Typing VI).</p> <p>Mouse anti Human CD34 antibody, clone QBEND/10 has been successfully exploited for the detection of CD34 in brain capillaries of Alzheimer's patients (<a href="#">Kalaria et al. 1992</a>) and in acute lymphoblastic leukemia cells (<a href="#">Sutherland et al. 1992</a>) by western blotting.</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. Fina, L. <i>et al.</i> (1990) Expression of the CD34 gene in vascular endothelial cells. <a href="#">Blood. 75 (12): 2417-26.</a></li> <li>2. Sauer, G. <i>et al.</i> (2003) Progression of cervical carcinomas is associated with down-regulation of CD9 but strong local re-expression at sites of transendothelial</li> </ol>

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**Further Reading** 1. Gorr, T.A. *et al.* (2011) Old proteins - new locations: myoglobin, haemoglobin, neuroglobin and cytoglobin in solid tumours and cancer cells. [Acta Physiol \(Oxf\). 202: 563-581.](#)

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**Storage** 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.

Avoid repeated freezing and thawing as this may denature the antibody. Storage in frost-free freezers is not recommended.

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**Guarantee** 12 months from date of despatch

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**Health And Safety Information** Material Safety Datasheet documentation #10041 available at: <https://www.bio-rad-antibodies.com/SDS/MCA547B>  
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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** Tel: +1 800 265 7376

**America** Fax: +1 919 878 3751

Email: [antibody\\_sales\\_us@bio-rad.com](mailto:antibody_sales_us@bio-rad.com)

**Worldwide**

Tel: +44 (0)1865 852 700

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'M437671:250318'

Printed on 18 Mar 2025