

# Datasheet: MCA547G

**BATCH NUMBER 167754**

<b>Description:</b>	MOUSE ANTI HUMAN CD34
<b>Specificity:</b>	CD34 CLASS II
<b>Format:</b>	Purified
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	QBEND/10
<b>Isotype:</b>	IgG1
<b>Quantity:</b>	0.2 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	▪			1/100 - 1/200
Immunohistology - Frozen	▪			
Immunohistology - Paraffin	▪			1/500 - 1/1000
ELISA			▪	
Immunoprecipitation	▪			
Western Blotting	▪			
Immunofluorescence	▪			
Immuno-electron Microscopy	▪			

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.

<b>Target Species</b>	Human
<b>Species Cross Reactivity</b>	<p>Reacts with: Cynomolgus monkey, Rhesus Monkey</p> <p>Does not react with: Bovine, Sheep, Rat, Dog</p> <p><b>N.B.</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.</p>
<b>Product Form</b>	Purified IgG - liquid

<b>Preparation</b>	Purified IgG prepared by affinity chromatography on Protein A from tissue culture supernatant
<b>Buffer Solution</b>	Phosphate buffered saline
<b>Preservative Stabilisers</b>	0.09% Sodium Azide
<b>Approx. Protein Concentrations</b>	IgG concentration 1.0 mg/ml
<b>Immunogen</b>	Human endothelial cell membrane vesicles.
<b>External Database Links</b>	<p><b>UniProt:</b></p> <p><a href="#">P28906</a>    <a href="#">Related reagents</a></p> <p><b>Entrez Gene:</b></p> <p><a href="#">947</a>    CD34    <a href="#">Related reagents</a></p>
<b>RRID</b>	AB_1125255
<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 <i>et al.</i> 2001</a>) and small vessel endothelium (<a href="#">Ramani <i>et al.</i> 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 <i>et al.</i> 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 epitope to Mouse anti Human CD34, clone 581 which binds to the class III epitope resistant to all three enzymatic 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 its 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 <i>et al.</i> 1992</a>) and</p>

in acute lymphoblastic leukemia cells ([Sutherland et al. 1992](#)) by western blotting.

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<b>Flow Cytometry</b>	Use 10ul of the suggested working dilution to label 10 <sup>6</sup> cells in 100ul.
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<b>Histology Positive Control Tissue</b>	Tonsil, Bone Marrow.
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- References**
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  2. Sauer, G. *et al.* (2003) Progression of cervical carcinomas is associated with down-regulation of CD9 but strong local re-expression at sites of transendothelial invasion. [Clin Cancer Res. 9: 6426-31.](#)
  3. Rutella, S. *et al.* (2003) Identification of a novel subpopulation of human cord blood CD34-CD133-CD7-CD45+lineage- cells capable of lymphoid/NK cell differentiation after in vitro exposure to IL-15. [J Immunol. 171: 2977-88.](#)
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<b>Further Reading</b>	1. Gorr, T.A. <i>et al.</i> (2011) Old proteins - new locations: myoglobin, haemoglobin, neuroglobin and cytoglobin in solid tumours and cancer cells. <a href="#">Acta Physiol (Oxf). 202: 563-581.</a>
<b>Storage</b>	Store at +4°C. DO NOT FREEZE. This product should be stored undiluted. Should this product contain a precipitate we recommend microcentrifugation before use.
<b>Guarantee</b>	12 months from date of despatch
<b>Health And Safety Information</b>	Material Safety Datasheet documentation #10040 available at: <a href="https://www.bio-rad-antibodies.com/SDS/MCA547G">https://www.bio-rad-antibodies.com/SDS/MCA547G</a> 10040
<b>Regulatory</b>	For research purposes only

## Related Products

### Recommended Secondary Antibodies

Rabbit Anti Mouse IgG (STAR12...)	<a href="#">RPE</a>
Goat Anti Mouse IgG IgA IgM (STAR87...)	<a href="#">HRP</a>
Goat Anti Mouse IgG (STAR76...)	<a href="#">RPE</a>
Rabbit Anti Mouse IgG (STAR13...)	<a href="#">HRP</a>
Goat Anti Mouse IgG (STAR70...)	<a href="#">FITC</a>
Goat Anti Mouse IgG (H/L) (STAR117...)	<a href="#">Alk. Phos.</a> , <a href="#">DyLight®488</a> , <a href="#">DyLight®550</a> , <a href="#">DyLight®650</a> , <a href="#">DyLight®680</a> , <a href="#">DyLight®800</a> , <a href="#">FITC</a> , <a href="#">HRP</a>

Rabbit Anti Mouse IgG (STAR9...) [FITC](#)  
Goat Anti Mouse IgG (STAR77...) [HRP](#)  
Goat Anti Mouse IgG (Fc) (STAR120...) [FITC](#), [HRP](#)

## Recommended Negative Controls

[MOUSE IgG1 NEGATIVE CONTROL \(MCA928\)](#)

<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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