Datasheet: MCA547B

BATCH NUMBER 161631

Description:	MOUSE ANTI HUMAN CD34:Biotin
Specificity:	CD34 CLASS II
Format:	Biotin
Product Type:	Monoclonal Antibody
Clone:	QBEND/10
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

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

Buffer Solution

Phosphate buffered saline

Preservative Stabilisers

0.09% Sodium Azide
1% Bovine Serum Albumin

Approx. Protein

IgG concentration 0.1mg/ml

Concentrations	
Immunogen	Human endothelial cell membrane vesicles.
External Database Links	**UniProt:** P28906 Related reagents **Entrez Gene:** 947 CD34 Related reagents
RRID	AB_2074373
Fusion Partners	Spleen cells from immunized NZB mice were fused with cells of the mouse NSO myeloma cell line.
Specificity	**Mouse anti Human CD34 antibody, clone QBEND/10** 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 (Kaufman *et al.* 2001) and small vessel endothelium (Ramani *et al.* 1990) 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 (Lanza *et al.* 1999). 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 *et al.* 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 *et al.* 1996, in Leukocyte Typing VI). Mouse anti Human CD34 antibody, clone QBEND/10 has been successfully exploited for the detection of CD34 in brain capillaries of Alzheimer's patients (Kalaria *et al.* 1992) and in acute lymphoblastic leukemia cells (Sutherland *et al.* 1992) by western blotting.
Flow Cytometry	Use 10ul of the suggested working dilution to label 10^6 cells in 100ul.
References	1. Fina, L. *et al.* (1990) Expression of the CD34 gene in vascular endothelial cells. Blood. 75 (12): 2417-26. 2. Sopper, S. *et al.* (1997) Lymphocyte subsets and expression of differentiation markers in blood and lymphoid organs of rhesus monkeys. Cytometry. 29 (4): 351-62. 3. Chan-Ling T (2011) Role of CD44+ Stem Cells in Mural Cell Formation in the Human

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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.
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.
Guarantee	12 months from date of despatch
Health And Safety Information	Material Safety Datasheet documentation #10041 available at: https://www.bio-rad-antibodies.com/SDS/MCA547B 10041
Regulatory	For research purposes only

Related Products

Recommended Useful Reagents

HUMAN SEROBLOCK (BUF070A)
HUMAN SEROBLOCK (BUF070B)

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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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