

**Mouse Anti-Human CD34 Class-II,
monoclonal**

CatNo **K077**

BatchNo: See Label
Expiration Date: See Label
Storage: 2-8°C for 1 month
-20°C for longer

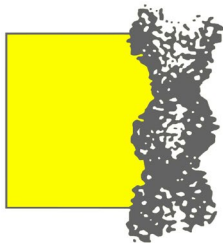
Clone Number:	QBEND/10
Volume/Quantity:	0.1 mg
Product Form:	Purified IgG - liquid
Buffer:	Phosphate buffered saline.
Approx. Protein Concentrations	IgG concentration 1 mg/ml
Preservatives Stabilisers:	0.09 Sodium Azide (NaN ₃)
Immunogen:	Human endothelial cell membrane vesicles.
Isotype:	IgG1 (Mouse)
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 HumanCD34 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 (MAK1578) which binds to the class III epitope resistant to all three enzymatic treatments (Nishio et al. 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 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 (Kalara et al. 1992) and in acute lymphoblastic leukemia cells (Sutherland et al. 1992) by western blotting.

Applications:		Suggested Working Dilution
FlowCytometry	Yes	1/100 – 1/200
Immunohistology-frozen	Yes	
Immunohistology-paraffin	Yes	1/500 – 1/1000
Immunofluorescence	Yes	
ELISA	Not tested	
Western Blotting	Yes	

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.

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Immunohistology

Positive Control Tissue: Tonsil, Bone Marrow.
Recommended Secondary Reagents: F(ab')₂ rabbit anti-mouse IgG HRP conjugate – (LINARIS CatNo LST0013B) Vectastain[®] ABC Mouse IgG (Vector CatNo AK-5002) and Substrate-Kit e.g. Vector[®] Red (Vector CatNo SK-5100).
Vectastain[®] ABC-Elite Mouse IgG (Vector CatNo PK-6102) and Peroxidase Substrate-Kit e.g. DAB (LINARIS CatNo E108) or HistoGreen (LINARIS CatNo E109).
Recommended Negative Controls: Mouse IgG1 Negative Control (LINARIS CatNo ITC0928)

Storage Conditions: Store at 2-8°C for one month or at -20°C for longer!
Avoid repeated freezing and thawing as this may denature the antibody. Should this product contain a precipitate we recommend microcentrifugation before use.
Shelf Life: 12 months from date of despatch.
Health and Safety Information: (A full Health and Safety assessment is available upon request)
This product contains sodium azide: a POISONOUS and HAZARDOUS SUBSTANCE which should be handled by trained staff only.

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For Research purposes only. Not for therapeutic or diagnostic use.

