

## Product datasheet

# Anti-CD31 antibody [WM59] (Phycoerythrin) ab30349

[2 References](#) [1 Image](#)

### Overview

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<b>Product name</b>	Anti-CD31 antibody [WM59] (Phycoerythrin)
<b>Description</b>	Mouse monoclonal [WM59] to CD31 (Phycoerythrin)
<b>Host species</b>	Mouse
<b>Conjugation</b>	Phycoerythrin. Ex: 488nm, Em: 575nm
<b>Specificity</b>	ab30349 recognises CD31 expressed by platelets, endothelial cells, granulocytes and some lymphocytes.
<b>Tested applications</b>	<b>Suitable for:</b> Flow Cyt
<b>Species reactivity</b>	<b>Reacts with:</b> Human, Cynomolgus monkey, Rhesus monkey
<b>Immunogen</b>	The details of the immunogen for this antibody are not available.
<b>Epitope</b>	Domain 2
<b>Positive control</b>	human peripheral blood platelets

### Properties

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<b>Form</b>	Liquid
<b>Storage instructions</b>	Shipped at 4°C. Store at +4°C.
<b>Storage buffer</b>	Preservative: 0.09% Sodium Azide Constituents: 1% BSA, PBS, pH 7.4
<b>Purity</b>	Protein G purified
<b>Purification notes</b>	ab30349 was purified by protein G chromatography from tissue culture supernatant.
<b>Clonality</b>	Monoclonal
<b>Clone number</b>	WM59
<b>Isotype</b>	IgG1

### Applications

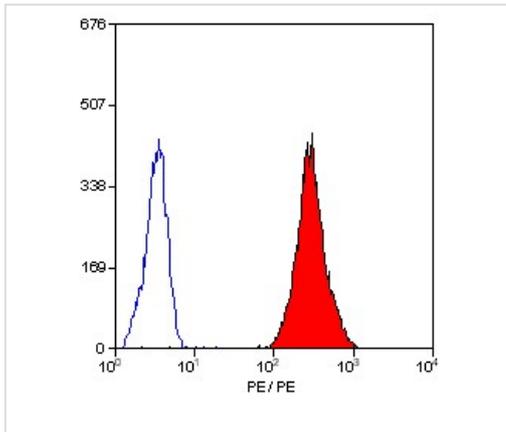
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The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
Flow Cyt		
<b>Application notes</b>	Flow Cyt: Use 10µl for 10 <sup>6</sup> cells or for or 100µl whole blood.	
	Not yet tested in other applications.	
	Optimal dilutions/concentrations should be determined by the end user.	
<b>Target</b>		
<b>Function</b>	<p>Induces susceptibility to atherosclerosis (By similarity). Cell adhesion molecule which is required for leukocyte transendothelial migration (TEM) under most inflammatory conditions. Tyr-690 plays a critical role in TEM and is required for efficient trafficking of PECAM1 to and from the lateral border recycling compartment (LBRC) and is also essential for the LBRC membrane to be targeted around migrating leukocytes. Prevents phagocyte ingestion of closely apposed viable cells by transmitting 'detachment' signals, and changes function on apoptosis, promoting tethering of dying cells to phagocytes (the encounter of a viable cell with a phagocyte via the homophilic interaction of PECAM1 on both cell surfaces leads to the viable cell's active repulsion from the phagocyte. During apoptosis, the inside-out signaling of PECAM1 is somehow disabled so that the apoptotic cell does not actively reject the phagocyte anymore. The lack of this repulsion signal together with the interaction of the eat-me signals and their respective receptors causes the attachment of the apoptotic cell to the phagocyte, thus triggering the process of engulfment). Isoform Delta15 is unable to protect against apoptosis. Modulates BDKRB2 activation. Regulates bradykinin- and hyperosmotic shock-induced ERK1/2 activation in human umbilical cord vein cells (HUVEC).</p>	
<b>Tissue specificity</b>	<p>Expressed on platelets and leukocytes and is primarily concentrated at the borders between endothelial cells. Isoform Long predominates in all tissues examined. Isoform Delta12 is detected only in trachea. Isoform Delta14-15 is only detected in lung. Isoform Delta14 is detected in all tissues examined with the strongest expression in heart. Isoform Delta15 is expressed in brain, testis, ovary, cell surface of platelets, human umbilical vein endothelial cells (HUVECs), Jurkat T-cell leukemia, human erythroleukemia (HEL) and U937 histiocytic lymphoma cell lines (at protein level).</p>	
<b>Sequence similarities</b>	<p>Contains 6 Ig-like C2-type (immunoglobulin-like) domains.</p>	
<b>Domain</b>	<p>The Ig-like C2-type domains 2 and 3 contribute to formation of the complex with BDKRB2 and in regulation of its activity.</p>	
<b>Post-translational modifications</b>	<p>Phosphorylated on Ser and Tyr residues after cellular activation. In endothelial cells Fyn mediates mechanical-force (stretch or pull) induced tyrosine phosphorylation.</p>	
<b>Cellular localization</b>	<p>Membrane. Cell junction. Localizes to the lateral border recycling compartment (LBRC) and recycles from the LBRC to the junction in resting endothelial cells and Cell junction. Localizes to the lateral border recycling compartment (LBRC) and recycles from the LBRC to the junction in resting endothelial cells.</p>	

## Images



Flow cytometric analysis of human peripheral blood lymphocytes with 10 $\mu$ l for 10<sup>6</sup> cells of anti human CD31 Phycoerythrin conjugated (ab30349).

Flow Cytometry - Anti-CD31 antibody [WM59]  
(Phycoerythrin) (ab30349)

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