

Product datasheet

FITC Anti-CD31 antibody [TLD-3A12] ab33858

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Overview

Product name	FITC Anti-CD31 antibody [TLD-3A12]
Description	FITC Mouse monoclonal [TLD-3A12] to CD31
Host species	Mouse
Conjugation	FITC. Ex: 493nm, Em: 528nm
Specificity	Ab33858 recognises CD31 expressed primarily on endothelial cells, platelets and leucocytes.
Tested applications	Suitable for: Flow Cyt
Species reactivity	Reacts with: Rat Does not react with: Human
Immunogen	Tissue, cells or virus corresponding to Rat CD31. Activated, Lewis rat derived microglial cells
General notes	<p>This clone (TLD 3A12) has been shown to partially block the proliferative response of antigen specific CD4+ T cells to antigen presenting cells and relevant antigen.</p> <p>The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.</p> <p>If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As</p>

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C.
Storage buffer	pH: 7.40 Preservative: 0.09% Sodium azide Constituent: PBS
Purity	Protein G purified
Purification notes	Ab33858 was purified from tissue culture supernatant.
Primary antibody notes	This clone (TLD 3A12) has been shown to partially block the proliferative response of antigen

specific CD4+ T cells to antigen presenting cells and relevant antigen.

Clonality	Monoclonal
Clone number	TLD-3A12
Myeloma	Sp2
Isotype	IgG1

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab33858 in the following tested applications. The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
Flow Cyt		Use 10µl for 10 ⁶ cells. Use 10µl for labeling 10 ⁶ cells in 100µl. ab91356 - Mouse monoclonal IgG1, is suitable for use as an isotype control with this antibody.

Target

Function 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).

Tissue specificity 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).

Sequence similarities Contains 6 Ig-like C2-type (immunoglobulin-like) domains.

Domain The Ig-like C2-type domains 2 and 3 contribute to formation of the complex with BDKRB2 and in regulation of its activity.

Post-translational Phosphorylated on Ser and Tyr residues after cellular activation. In endothelial cells Fyn mediates

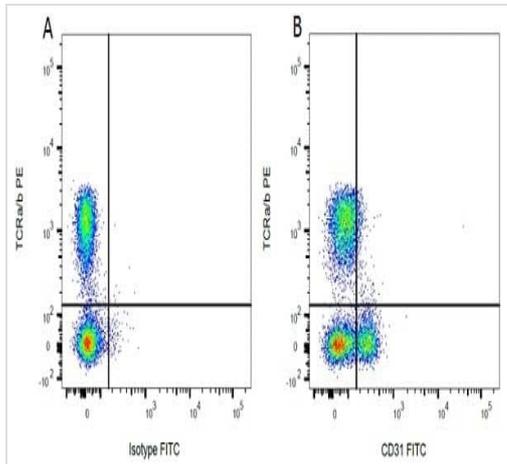
modifications

mechanical-force (stretch or pull) induced tyrosine phosphorylation.

Cellular localization

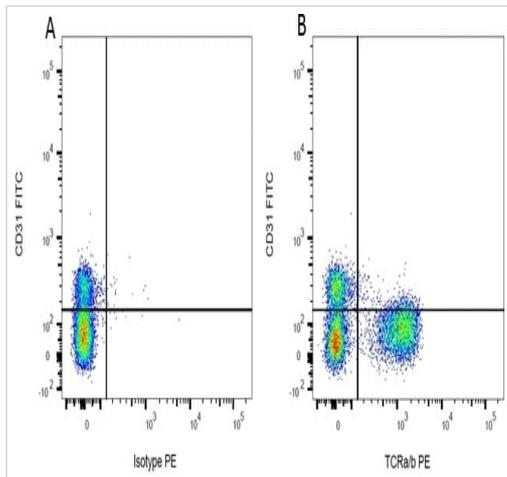
Membrane. Cell junction. Localizes to the lateral border recycling compartment (LBRC) and recycles from the LBRC to the junction in resting endothelial cells and Cell junction. Localizes to the lateral border recycling compartment (LBRC) and recycles from the LBRC to the junction in resting endothelial cells.

Images



Flow Cytometry - FITC Anti-CD31 antibody [TLD-3A12] (ab33858)

Figure A. RPE conjugated mouse anti rat TCRa/b and FITC conjugated mouse IgG1 isotype control. Figure B. RPE conjugated mouse anti rat TCRa/b and ab33858. All experiments performed on red cell lysed rat blood gated on mononuclear cells.



Flow Cytometry - FITC Anti-CD31 antibody [TLD-3A12] (ab33858)

Figure A. ab33858 and RPE conjugated mouse IgG1 isotype control. Figure B. ab33858 and RPE conjugated mouse anti rat TCRa/b. All experiments performed on red cell lysed rat blood gated on mononuclear cells.

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