abcam

Product datasheet

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

11 References

Overview

Product name	Anti-CD31 antibody [TLD-3A12] (FITC)
Description	Mouse monoclonal [TLD-3A12] to CD31 (FITC)
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/ cell preparation: Activated, Lewis rat derived microglial cells.
General 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.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C.
Storage buffer	Preservative: 0.09% Sodium Azide Constituents: 1% BSA, PBS, pH 7.4
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

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 modifications

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

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