Datasheet for ABIN3043601
# anti-CD31 antibody (AA 28-382)

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## Overview

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| Quantity: | 100 µg |
| Target: | CD31 (PECAM1) |
| Binding Specificity: | AA 28-382 |
| Reactivity: | Human, Rat |
| Host: | Rabbit |
| Clonality: | Polyclonal |
| Conjugate: | This CD31 antibody is un-conjugated |
| Application: | Flow Cytometry (FACS), Western Blotting (WB), Immunohistochemistry (Paraffin-embedded Sections) (IHC (p)) |

## Product Details

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| Purpose: | Rabbit IgG polyclonal antibody for Platelet endothelial cell adhesion molecule(PECAM1) detection. Tested with WB, IHC-P, FCM in Human. |
| Immunogen: | E.coli-derived human CD31 recombinant protein (Position: Q28-G382). Human CD31 shares 65% and 68% amino acid (aa) sequences identity with mouse and rat CD31, respectively. |
| Isotype: | IgG |
| Cross-Reactivity (Details): | No cross reactivity with other proteins. |
| Characteristics: | Rabbit IgG polyclonal antibody for Platelet endothelial cell adhesion molecule(PECAM1) detection. Tested with WB, IHC-P, FCM in Human. Gene Name: platelet/endothelial cell adhesion molecule 1 Protein Name: Platelet endothelial cell adhesion molecule |

## Product Details

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| Purification: | Immunogen affinity purified. |

## Target Details

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| Target: | CD31 (PECAM1) |
| Alternative Name: | PECAM1 (PECAM1 Products) |
| Background: | CD31 also known as Platelet endothelial cell adhesion molecule (PECAM-1), is a protein that in human is encoded by the PECAM1 gene. Encoded protein is a member of the immunoglobulin superfamily, CD31 is mapped to 17q23.3. CD31 is found on the surface of platelets, monocytes, neutrophils, and some types of T-cells, and makes up a large portion of endothelial cell intercellular junctions. It is demonstrated that CD31 expression on human PBSCs may positively affect both neutrophil and platelet engraftment. Meanwhile, CD31 is involved in leukocyte migration and angiogenesis, which are key components of venous thrombus resolution. <br><br> Synonyms: Adhesion molecule antibody\|CD31 antibody\|CD31 antigen antibody\|CD31 EndoCAM antibody\|Endocam antibody\|FLJ34100 antibody\|FLJ58394 antibody\|GPIIA antibody\|GPIIA' antibody\|PECA1 antibody\|PECA1_HUMAN antibody\|Pecam 1 antibody\|PECAM 1 CD31 EndoCAM antibody\|PECAM antibody\|PECAM-1 antibody\|Pecam1 antibody\|Platelet endothelial cell adhesion molecule antibody\|Platelet/endothelial cell adhesion molecule 1 antibody\|Platelet/endothelial cell adhesion molecule antibody |
| Gene ID: | 5175 |
| UniProt: | P16284 |
| Pathways: | Regulation of Actin Filament Polymerization |

## Application Details

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| Application Notes: | WB: Concentration: 0.1-0.5 µg/mL, Tested Species: Human, The detection limit for CD31 is approximately 0.25 ng/lane under reducing conditions. <br> IHC-P: Concentration: 0.5-1 µg/mL, Tested Species: Human, Epitope Retrieval by Heat: Boiling the paraffin sections in 10 mM citrate buffer, pH 6.0, for 20 mins is required for the staining of formalin/paraffin sections. <br> Flow Cytometry: Concentration:1-3 µg/1x106 cells, Tested Species: Human <br> Notes: Tested Species: Species with positive results. Other applications have not been tested. Optimal dilutions should be determined by end users. |

## Application Details

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| Comment: | Antibody can be supported by chemiluminescence kit ABIN921124 in WB, supported by ABIN921231 in IHC(P). |
| Restrictions: | For Research Use only |

## Handling

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| Format: | Lyophilized |
| Reconstitution: | Add 0.2 mL of distilled water will yield a concentration of 500 μg/mL. |
| Concentration: | 500 μg/mL |
| Buffer: | Each vial contains 5 mg BSA, 0.9 mg NaCl, 0.2 mg Na2HPO4, 0.05 mg Sodium azide. |
| Preservative: | Sodium azide |
| Precaution of Use: | This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only. |
| Handling Advice: | Avoid repeated freezing and thawing. |
| Storage: | 4 °C/-20 °C |
| Storage Comment: | At -20°C for one year. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20 °C for a longer time. Avoid repeated freezing and thawing. |

## Publications

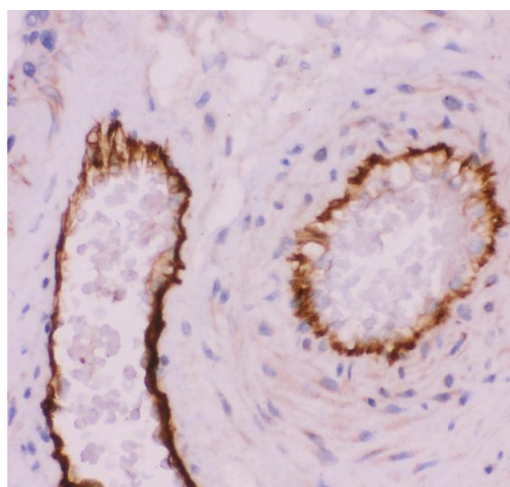| | |
|---|---|
| Product cited in: | Zhang, Chen, Wang, Yang, Li, Wang, Liu, Ye: "Treatment of diabetes mellitus-induced erectile dysfunction using endothelial progenitor cells genetically modified with human telomerase reverse transcriptase." in: **Oncotarget**, Vol. 7, Issue 26, pp. 39302-39315, (2018) (PubMed). |
| | Chen, Li, Peng, Jie, Dongye, Cai, Feng, Li, Zeng, Lun, Chen, Xu: "The induction of autophagy against mitochondria-mediated apoptosis in lung cancer cells by a ruthenium (II) imidazole complex." in: **Oncotarget**, Vol. 7, Issue 49, pp. 80716-80734, (2018) (PubMed). |
| | Zhang, Peng, Yuan, Xie, Yang, Xue: "Peroxisome proliferator-activated receptor γ mediates porcine placental angiogenesis through hypoxia inducible factor-, vascular endothelial growth factor- and angiopoietin-mediated signaling." in: **Molecular medicine reports**, Vol. 16, Issue 3, pp. 2636-2644, (2018) (PubMed). |

## Publications

Fan, Qu, Chu, Gao, Gao, Chen, Tian: "MicroRNA-210 promotes angiogenesis in acute myocardial infarction." in: **Molecular medicine reports**, Vol. 17, Issue 4, pp. 5658-5665, (2018) (PubMed).

Atala: "Re: Treatment of Diabetes Mellitus-Induced Erectile Dysfunction Using Endothelial Progenitor Cells Genetically Modified with Human Telomerase Reverse Transcriptase." in: **The Journal of urology**, Vol. 197, Issue 2, pp. 494, (2017) (PubMed).
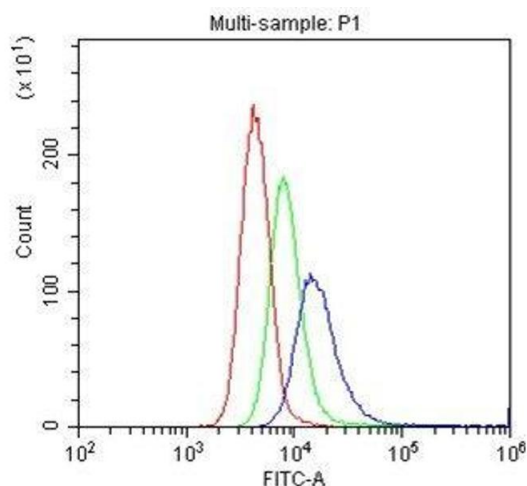
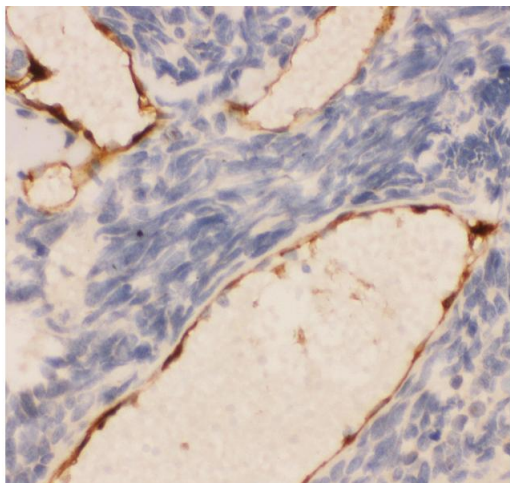There are more publications referencing this product on: Product page

## Images



### Immunohistochemistry

**Image 1.** Anti-CD31 Picoband antibody, IHC(P): Human Placenta Tissue



### Flow Cytometry

**Image 2.** Flow Cytometry analysis of U937 cells using anti-CD31 antibody . Overlay histogram showing U937 cells stained with (Blue line).The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-CD31 Antibody (,1µg/1x106 cells) for 30 min at 20°C. DyLight?488 conjugated goat anti-rabbit IgG (BA1127, 5-10µg/1x106 cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1µg/1x106) used under the same conditions. Unlabelled sample (Red line) was also used as a control.

# Images



**Immunohistochemistry**

**Image 3.** Anti-CD31 Picoband antibody, IHC(P): Human Lung Cancer Tissue

Please check the product details page for more images. Overall 5 images are available for ABIN3043601.