

Datasheet for ABIN5692990

anti-CD31 antibody (AA 58-273)



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Overview

Quantity:	100 µg
Target:	CD31 (PECAM1)
Binding Specificity:	AA 58-273
Reactivity:	Mouse
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This CD31 antibody is un-conjugated
Application:	Western Blotting (WB), Immunohistochemistry (IHC), ELISA

Product Details

Purpose:	Anti-CD31/Pecam1 Antibody Picoband®
Immunogen:	E. coli-derived mouse CD31 recombinant protein (Position: R58-Q273).
Isotype:	IgG
Cross-Reactivity (Details):	No cross-reactivity with other proteins.
Characteristics:	Anti-CD31/Pecam1 Antibody Picoband® (ABIN5692990). Tested in ELISA, IHC, WB applications. This antibody reacts with Mouse. The brand Picoband indicates this is a premium antibody that guarantees superior quality, high affinity, and strong signals with minimal background in Western blot applications. Only our best-performing antibodies are designated as Picoband, ensuring unmatched performance.

Target Details

Target:	CD31 (PECAM1)
Alternative Name:	Pecam1 (PECAM1 Products)
Background:	Synonyms: Platelet endothelial cell adhesion molecule, PECAM-1, CD31, Pecam1, Pecam, Pecam-1 Tissue Specificity: Isoform 1 and isoform 3 are expressed in lung and platelets. 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 and this gene 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.
Molecular Weight:	130 kDa
Gene ID:	18613
UniProt:	Q08481
Pathways:	Regulation of Actin Filament Polymerization

Application Details

Application Notes:	Western blot, 0.1-0.5 µg/mL Immunohistochemistry, 2-5 µg/mL ELISA, 0.1-0.5 µg/mL 1. Donmez A, Tombuloglu M, Gulbahar O, Arik B, Cagirgan S, Vural F, Gokmen N."CD31 expression on peripheral blood stem cells predicts both early neutrophil and platelet engraftments."2013 Oct,49(2):307-12. 2. Gumina RJ, Kirschbaum NE, Rao PN, vanTuinen P, Newman PJ (June 1996). "The human PECAM1 gene maps to 17q23". Genomics 34 (2): 229-32. 3. Kellermair J, Redwan B, Alias S, Jabkowski J, Panzenboeck A, Kellermair L, Winter MP, Weltermann A, Lang IM."Platelet endothelial cell adhesion molecule 1 deficiency misguides venous thrombus resolution."2013 Nov 7, 122(19):3376-84. 4. Newman PJ, Berndt MC, Gorski J, White GC, Lyman S, Paddock C, Muller WA (March 1990). "PECAM-1 (CD31) cloning and relation to adhesion molecules of the immunoglobulin gene superfamily". Science 247 (4947): 1219-22. 5. Xie Y, Muller WA (October 1996). "Fluorescence in situ hybridization mapping of the mouse platelet endothelial cell adhesion molecule-1 (PECAM1) to mouse chromosome 6,
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Application Details

region F3-G1". Genomics 37 (2): 226-8.

Restrictions: For Research Use only

Handling

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 4 mg Trehalose, 0.9 mg NaCl and 0.2 mg Na₂HPO₄.

Storage: 4 °C, -20 °C

Storage Comment: Store at -20°C for one year from date of receipt. After reconstitution, at 4°C for one month.
It can also be aliquotted and stored frozen at -20°C for six months. Avoid repeated freeze-thaw cycles.

Publications

Product cited in: 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](#)).

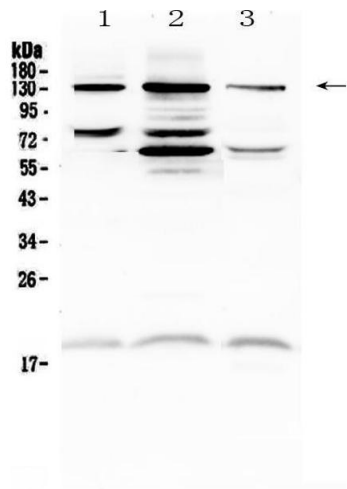
Fan, Qu, Chu, Gao, Gao, Chen, Tian: "MicroRNA-210 promotes angiogenesis in acute myocardial infarction." in: **Molecular medicine reports**, Vol. 17, Issue 4, pp. 5658-5665, (2018) ([PubMed](#)).

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](#)).

Chen, Yu, Gumireddy, Li, Yao, Gao, Chen, Hao, Wang, Huang, Xu, Ye: "ZBRK1, a novel tumor suppressor, activates VHL gene transcription through formation of a complex with VHL and p300 in renal cancer." in: **Oncotarget**, Vol. 6, Issue 9, pp. 6959-76, (2016) ([PubMed](#)).

There are more publications referencing this product on: [Product page](#)

Images



Western Blotting

Image 1. Western blot analysis of CD31 using anti-CD31 antibody . Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each Lane was loaded with 50ug of sample under reducing conditions. Lane 1: mouse ovary tissue lysates, Lane 2: mouse stomach tissue lysates, Lane 3: mouse kidney tissue lysates. After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA for 50-90 minutes. Blocked the membrane with 5% Non-fat Milk/ TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-CD31 antigen affinity purified polyclonal antibody (Catalog #) at 0.5 µg/mL overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:10000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for CD31 at approximately 130KD. The expected band size for CD31 is at 82KD.