



## Anti-human CD31/PECAM-1

20161213BB



**FOR RESEARCH ONLY! NOT FOR HUMAN USE!**

<b>Cat.-no.:</b>	<b>102-PA07</b>
Size:	200 µg
Lot. No.:	According to product label
Country of origin:	Germany

**Preparation:** Produced from sera of rabbits pre-immunized with highly pure (>98%) recombinant human sCD31 (Gln28-Lys601) derived from insect cells.

### Target Background

<b>Synonyms:</b>	CD31 antigen, EndoCAM, PECA1, PECAM1
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PECAM is transmembrane glycoprotein that belongs to the Ig-related superfamily of adhesion molecules. It is highly expressed at endothelial cell junctions, and is also expressed in platelets and most leukocyte sub-types. The primary function of PECAM-1 is the mediation of leukocyte-endothelial cell adhesion and signal transduction. PECAM-1 has been implicated in the pathogenesis of various inflammation-related disorders, including thrombosis, multiple sclerosis (MS), and rheumatoid arthritis. The human PECAM-1 gene codes for a 738 amino acid transmembrane glycoprotein that contains a 118 amino acid cytoplasmic domain, a 19 amino acid transmembrane domain, and a 574 amino acid extracellular domain. Recombinant human soluble PECAM-1 is a 574 amino acid glycoprotein comprising the extracellular domain of PECAM-1 fused to a C terminal His-tag (6xHis). Monomeric glycosylated PECAM-1 migrates at an apparent molecular weight of approximately 80.0-95.0 kDa by SDS-PAGE analysis under reducing conditions. The calculated molecular weight of recombinant human PECAM-1 is 64.3 kDa.

### References

1. Simmons DL et al, J Exp Med 171:2147-2152, 1990
2. Stockinger H et al, J Immunol 145:3889-3897, 1990
3. Newman PJ et al, Science 247:1219-1222, 1990
4. Albelda SM et al, J Cell Biol 114:1059-1068, 1991
5. Kirschbaum NE et al, Blood 84:4028-4037, 1994
6. Tang DG et al, J Biol Chem 268:22883-22894, 1993
7. Brown S et al, Nature 418:200-203, 2002
8. Wang Y et al, Am J Physiol 284:H1008-H1017, 2003

### Database References Antigen

<b>Protein RefSeq:</b>	NP_00433.4
<b>Uniprot ID:</b>	P16284
<b>mRNA RefSeq:</b>	NM_00442.4

### Product Specifications

<b>Species reactivity</b>	human
<b>Clone/Ab feature</b>	rabbit IgG
<b>Cross reactivity</b>	n.d.
<b>Host</b>	rabbit
<b>Clonality</b>	polyclonal
<b>Purification</b>	Protein A purified
<b>Immunogen</b>	recombinant human sCD31 (RT #S01-071)
<b>Formulation</b>	Lyophilized
<b>Buffer</b>	5 mM PBS, pH 7.2

**Stability:** The lyophilized antibody is stable at room temperature for up to 1 month. The reconstituted antibody is stable for at least two weeks at 2-8°C. Frozen aliquots are stable for at least 6 months when stored at -20°C.

**Reconstitution:** Centrifuge vial prior to opening. Reconstitute in sterile water to a concentration of 0.1-1.0 mg/ml.



**AVOID REPEATED FREEZE AND THAW CYCLES!**

### Applications

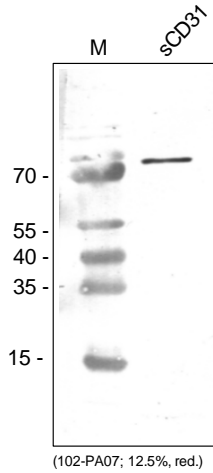
<b>Western Blot:</b>	Use at 1-5 µg/ml
<b>IF:</b>	Use at 2-10 µg/ml
<b>IF/IHC</b>	Use at 1-5 µg/ml
<b>FACS</b>	Use at 2-10 µg/ml

**NOTE: OPTIMAL DILUTIONS SHOULD BE DETERMINED BY EACH LABORATORY FOR EACH APPLICATION!**

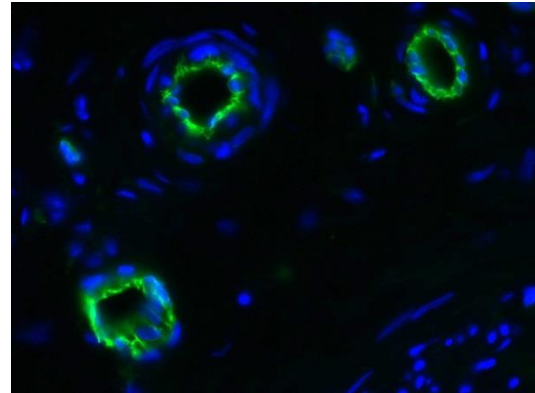


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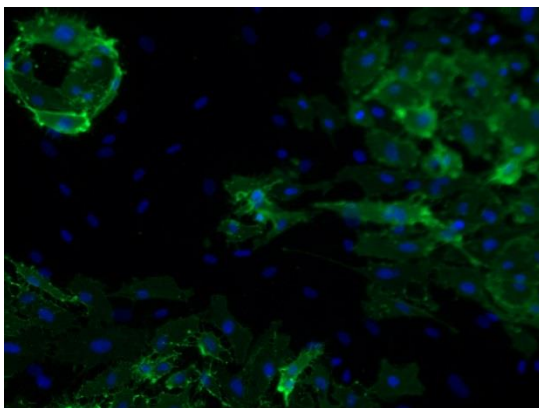
## Handling/Applications



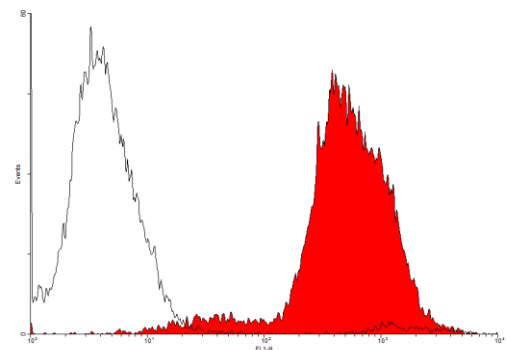
**Figure 1:** Western analysis of recombinant human sCD31 [Cat# S01-071] using a rabbit anti-human CD31 polyclonal antibody.



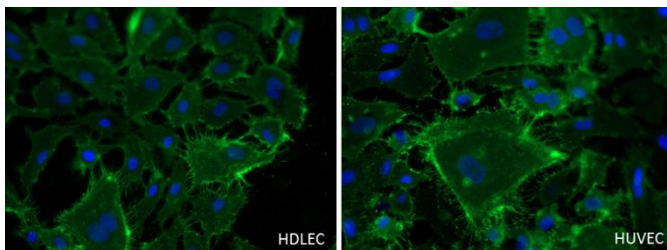
**Figure 4:** Immunofluorescence staining (cryo-sections) of vasa vasorum of a human lymphatic collector. (fixed 15 min in 4% PFA) with anti-human CD31 (5µg/ml) [Cat# 102-PA07] and counter staining of nuclei with Dapi. [400X] The experiment was performed by the research group of Prof. Dr. J. Witting and Dr. K. Buttler, University Göttingen, Germany.



**Figure 2:** Immunofluorescence staining of human CD31 in a mixture of primary human endothelial cells (HDLEC, HUVEC) and primary normal human dermal fibroblast (NHDF) with a polyclonal rabbit anti-human CD31 antibody [Cat# 102-PA07]. Conjugated secondary antibody: donkey anti-rabbit ALEXA Flour 488 (1:600) [Dianova].



**Figure 5:** FACS analysis of CD31 expression in human primary umbilical vein endothelial cells.



**Figure 3:** Immunofluorescence staining of human CD31 in primary human dermal lymphatic endothelial cells (HDLEC) and primary human umbilical vein endothelial cells (HUVEC) with a polyclonal rabbit anti-human CD31 antibody [Cat# 102-PA07]. Conjugated secondary antibody: donkey anti-rabbit ALEXA Flour 488 (1:600) [Dianova].