

Product datasheet for **TA336264**

CD31 (PECAM1) Rat Monoclonal Antibody [Clone ID: MEC 7.46]

Product data:

Product Type:	Primary Antibodies
Clone Name:	MEC 7.46
Applications:	FC, ICC/IF, IHC, IP
Recommended Dilution:	Immunohistochemistry-Paraffin: 1:10-1:500, Flow (Cell Surface), Immunohistochemistry: 1:100-1:500, Immunocytochemistry/ Immunofluorescence: 1:100-1:500, Immunoprecipitation: 1:10-1:500, Immunohistochemistry-Frozen: 1:100-1:500, Flow Cytometry: 1:10-1:1000, In vivo assay
Reactivity:	Mouse
Host:	Rat
Isotype:	IgG1
Clonality:	Monoclonal
Immunogen:	mouse endothelial cell line T-end
Formulation:	PBS containing 0.05% BSA, 0.05% Sodium Azide. Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.
Concentration:	lot specific
Purification:	Protein G purified
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Gene Name:	platelet and endothelial cell adhesion molecule 1
Database Link:	NP_000433 Entrez Gene 18613 Mouse P16284



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Background: CD31/PECAM1 is commonly used as an endothelial marker, particularly in angiogenesis. CD31/PECAM1 is important in assisting placental and endometrial vascular development. However, CD31/PECAM1 is also associated with many negative angiogenic occurrences, particularly those within or related to tumors and other disease lesions. In MS, plasma microparticules carry CD31/PECAM1 and are important in the formation of brain lesions associated with MS. In cardiac angiosarcoma, CD31/PECAM1 presence is indicative of the severity of the disease. In prostate tumor cells, CD31/PECAM1 is upregulated and associated with increased levels of HIF1a, VEGF, and other hypoxic markers. This relationship seems to indicate that when prostate cancer reaches a sufficient state of development that intense angiogenesis must occur in order to support the ongoing growth and survival of the cancer cells. In all, CD31/PECAM1 is a great marker for normal and disease-induced angiogenesis.

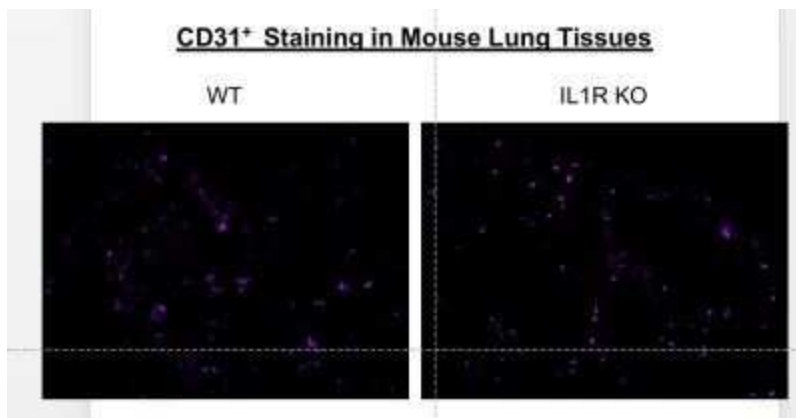
Synonyms: CD31; EndoCAM; endoCAM; GPIIA; PECA1; PECAM-1

Note: This CD31/PECAM1 antibody (clone MEC 7.46) is useful for Immunoprecipitation, Immunohistochemistry on frozen sections, Flow Cytometry and Immunofluorescence.

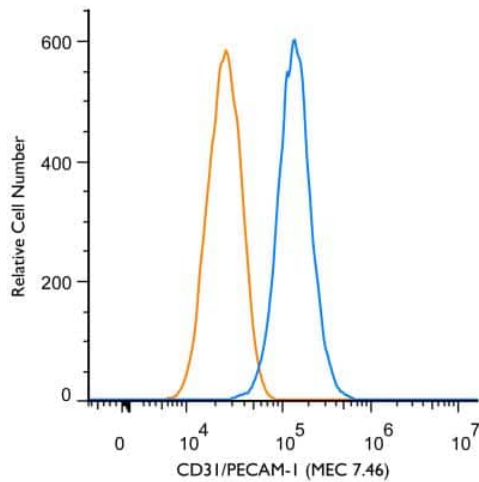
Protein Families: Druggable Genome, ES Cell Differentiation/IPS, Transmembrane

Protein Pathways: Cell adhesion molecules (CAMs), Leukocyte transendothelial migration

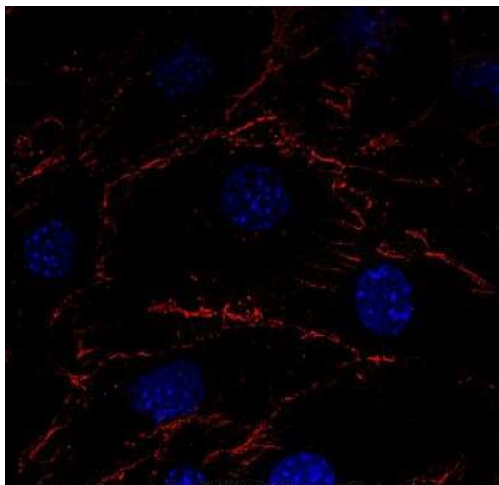
Product images:



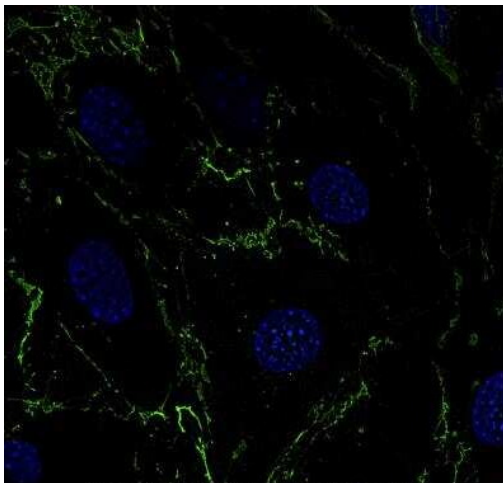
Immunohistochemistry-Frozen: CD31/PECAM-1 Antibody (MEC 7.46) TA336264 - Frozen mouse lung tissues of WT B6 and IL1R^{-/-} (knockout) mice were blocked with 1% BSA in PBS and were double stained with Alex647-conjugated CD31/PECAM-1 antibody (MEC 7.46) and PE-conjugated F4/80 for 2 hours at the room temperature. Image using the Alexa Fluor 647 format of this antibody.



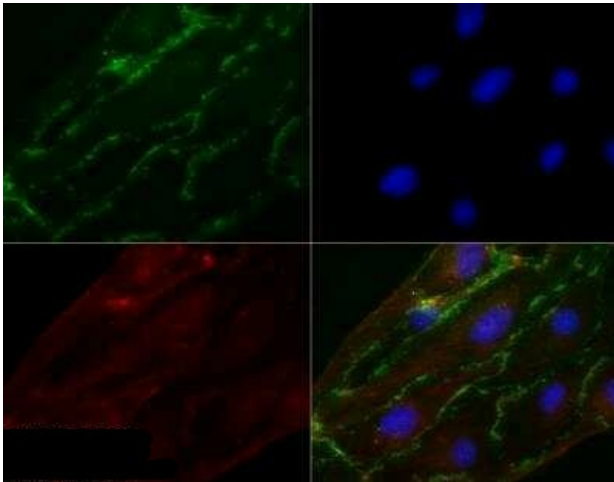
Flow (Cell Surface): CD31/PECAM-1 Antibody (MEC 7.46) TA336264 - A surface stain was performed on MS-1 Cells with CD31/PECAM-1 Antibody (MEC 7.46) TA336264 (blue) and a matched isotype control (orange). Cells were incubated in an antibody dilution of 2.5 ug/mL for 20 minutes at room temperature, followed by rat F(ab)₂ IgG (H+L) APC-conjugated secondary antibody (F0113, R&D Systems).



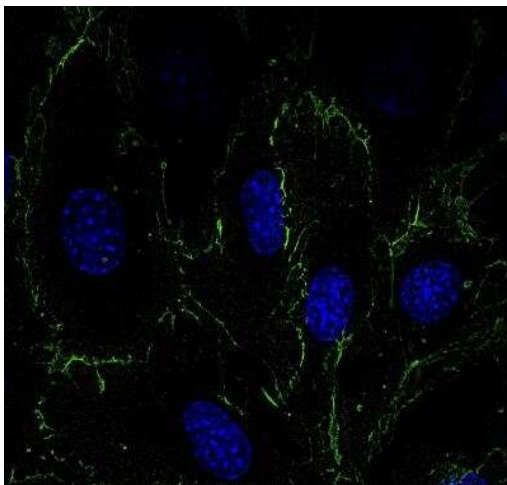
Immunocytochemistry/Immunofluorescence: CD31/PECAM-1 Antibody (MEC 7.46) TA336264 - Mouse MS1 cells were fixed in 4% paraformaldehyde for 10 minutes and permeabilized in 0.05% Triton X-100 in PBS for 5 minutes. The cells were incubated with CD31/PECAM-1 Antibody [MEC 7.46] conjugated to DyLight 550 (TA336264R) at 5 ug/ml for 1 hour at room temperature. Nuclei were counterstained with DAPI (Blue). Cells were imaged using a 100X objective and digitally deconvolved.



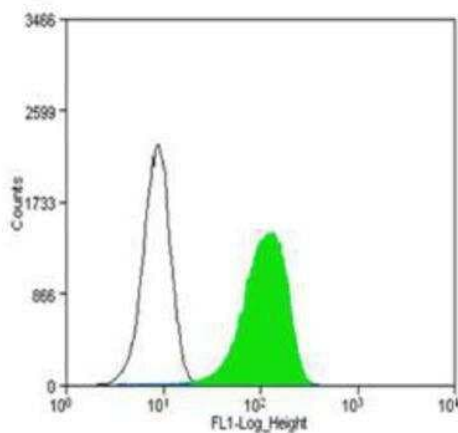
Immunocytochemistry/Immunofluorescence: CD31/PECAM-1 Antibody (MEC 7.46) TA336264 - Mouse MS1 cells were fixed in 4% paraformaldehyde for 10 minutes and permeabilized in 0.05% Triton X-100 in PBS for 5 minutes. The cells were incubated with CD31/PECAM-1 Antibody [MEC 7.46] conjugated to Alexa Fluor 488 (TA336264AF488) at 5 ug/ml for 1 hour at room temperature. Nuclei were counterstained with DAPI (Blue). Cells were imaged using a 100X objective and digitally deconvolved.



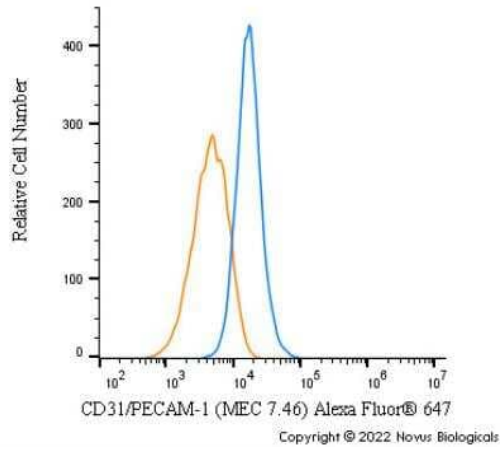
Immunocytochemistry/Immunofluorescence: CD31/PECAM-1 Antibody (MEC 7.46) TA336264 - MS1 cells were fixed for 10 minutes using 10% formalin and then permeabilized for 5 minutes using 1X TBS + 0.5% Triton X-100. The cells were incubated with at 5.0 ug/ml overnight at 4C and detected with an anti-mouse DyLight 488 (Green) at a 1:500 dilution. Actin was detected with Phalloidin 568 (Red) at a 1:200 dilution. Nuclei were counterstained with DAPI (Blue). Cells were imaged using a 40X objective.



Immunocytochemistry/Immunofluorescence: CD31/PECAM-1 Antibody (MEC 7.46) TA336264 - Mouse MS1 cells were fixed in 4% paraformaldehyde for 10 minutes and permeabilized in 0.05% Triton X-100 in PBS for 5 minutes. The cells were incubated with CD31/PECAM-1 Antibody [MEC 7.46] (TA336264) at 1ug/ml overnight at 4C and detected with an anti-rat DyLight 488 (Green) at a 1:1000 dilution for 60 minutes. Nuclei were counterstained with DAPI (Blue). Cells were imaged using a 100X objective and digitally deconvolved.



Flow Cytometry: CD31/PECAM-1 Antibody (MEC 7.46) TA336264 - CD31/PECAM-1 Antibody (MEC 7.46) was tested at 1:250 in WEHI-3 cells with DyLight 488 (green) alongside a matched isotype control (black).



Flow Cytometry: CD31/PECAM-1 Antibody (MEC 7.46) TA336264 - A surface stain was performed on MS1 cells with CD31/PECAM-1 [MEC 7.46] Antibody TA336264AF647 (blue) and a matched isotype control (orange). Cells were incubated in an antibody dilution of 2.5 ug/mL for 30 minutes at room temperature. Both antibodies were conjugated to Alexa Fluor 647.