

Product Datasheet

CD31 Antibody / PECAM-1 (orb640063)

Description	CD31 (PECAM-1) is a transmembrane glycoprotein member of the immunoglobulin supergene family of adhesion molecules. CD31 is expressed by stem cells of the hematopoietic system and is primarily used to identify and concentrate these cells for experimental studies as well as for bone marrow transplantation. Anti-CD31 has shown to be highly specific and sensitive for vascular endothelial cells. Staining of nonvascular tumors (excluding hematopoietic neoplasms) is rare. CD31 MAb reacts with normal, benign, and malignant endothelial cells which make up blood vessel lining. The level of CD31 expression can help to determine the degree of tumor angiogenesis, and a high level of CD31 expression may imply a rapidly growing tumor and potentially a predictor of tumor recurrence.
Species/Host	Mouse
Reactivity	Human
Conjugation	Unconjugated
Tested Applications	FACS, IF, IHC-P, WB
Immunogen	A recombinant human partial protein (amino acids 625-738) was used as the immunogen for the CD31 antibody.
Preservatives	0.2 mg/ml with 0.1 mg/ml rAlbumin (US sourced), 0.05% sodium azide
Storage	Store the CD31 antibody at 2-8°C (with azide) or aliquot and store at -20°C or colder (without azide).
Note	For research use only
Application notes	Optimal dilution of the antibody should be determined by the researcher.
Formula	0.2 mg/ml with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide
Isotype	Mouse IgG
Clonality	Monoclonal

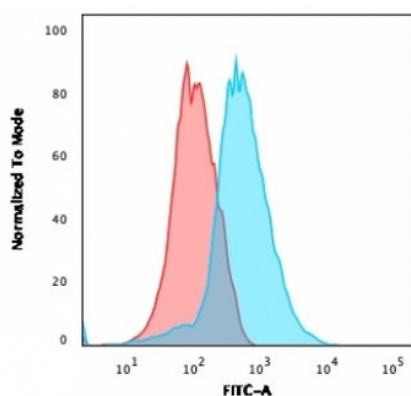
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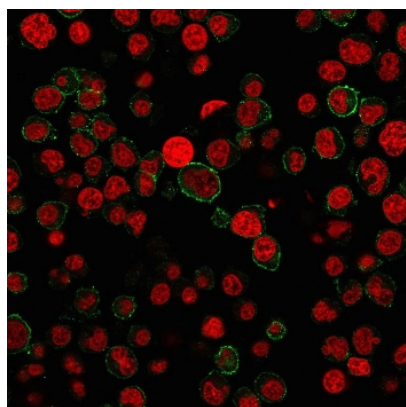
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Clone Number	PECAM1/3527
Purity	Protein G affinity chromatography
Uniprot ID	P16284
Hazard Information	This CD31 antibody is available for research use only.
Dilution Range	Flow cytometry: 1-2ug/million cells in 0.1ml, Immunofluorescence: 1-2ug/ml, Immunohistochemistry (FFPE): 1-2ug/ml, Western blot: 1-2ug/ml
Expiration Date	12 months from date of receipt.



Flow cytometry testing of human Jurkat cells with CD31 antibody (clone PECAM1/3527); Red=isotype control, Blue=CD31 antibody.



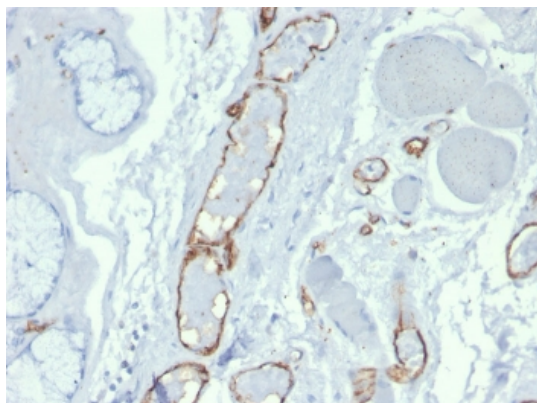
Immunofluorescent staining of human Jurkat cells with CD31 antibody (green, clone PECAM1/3527) and Reddot nuclear stain (red).

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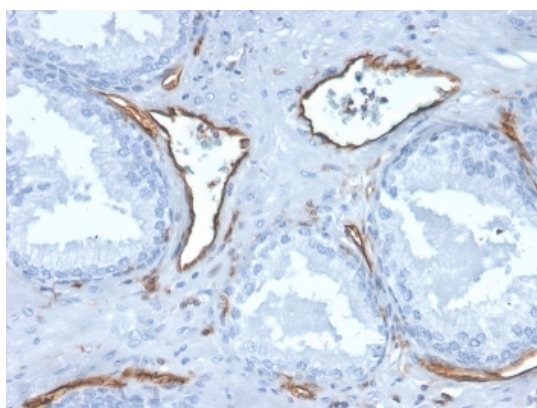
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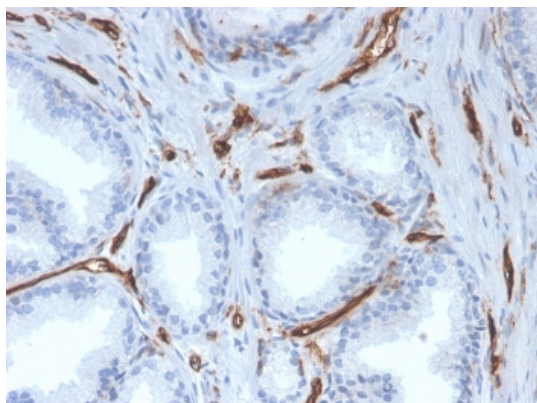
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IHC staining of FFPE human tonsil with CD31 antibody (clone PECAM1/3527). HIER: boil tissue sections in pH9 10mM Tris with 1mM EDTA for 10-20 min and allow to cool before testing.



IHC staining of FFPE human prostate with CD31 antibody (clone PECAM1/3527). HIER: boil tissue sections in pH9 10mM Tris with 1mM EDTA for 10-20 min and allow to cool before testing.



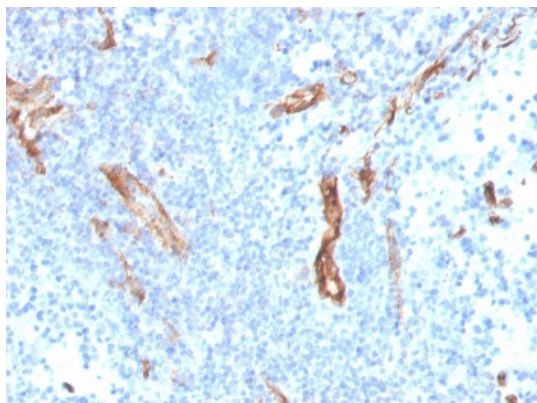
IHC staining of FFPE human prostate with CD31 antibody (clone PECAM1/3527). HIER: boil tissue sections in pH9 10mM Tris with 1mM EDTA for 10-20 min and allow to cool before testing.

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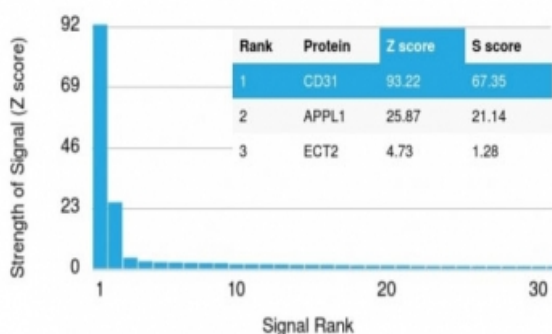
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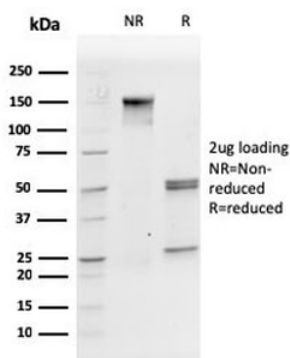


IHC staining of FFPE human prostate with CD31 antibody (clone PECAM1/3527). HIER: boil tissue sections in pH9 10mM Tris with 1mM EDTA for 10-20 min and allow to cool before testing.

Human Protein Microarray Specificity Validation



Analysis of HuProt (TM) microarray containing more than 19000 full-length human proteins using CD31 antibody (clone PECAM1/3527). These results demonstrate the foremost specificity of the PECAM1/3527 mAb. Z- and S- score: The Z-score represents the strength of a signal that an antibody (in combination with a fluorescently-tagged anti-IgG secondary Ab) produces when binding to a particular protein on the HuProt (TM) array. Z-scores are described in units of standard deviations (SD's) above the mean value of all signals generated on that array. If the targets on the HuProt (TM) are arranged in descending order of the Z-score, the S-score is the difference (also in units of SD's) between the Z-scores. The S-score therefore represents the relative target specificity of an Ab to its intended target.



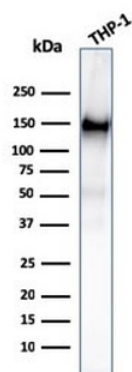
SDS-PAGE analysis of purified, BSA-free CD31 antibody (clone PECAM1/3527) as confirmation of integrity and purity.

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Western blot testing of human ThP-1 cell lysate with CD31 antibody. Expected molecular weight: 83-130 kDa depending on level of glycosylation.

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