

# Product Datasheet

## CD31/PECAM-1 Antibody (CO.3E1D4) - BSA Free NB100-65900-0.1mg

Unit Size: 0.1 mg

Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.

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**NB100-65900-0.1mg**

CD31/PECAM-1 Antibody (CO.3E1D4) - BSA Free

Product Information	
Unit Size	0.1 mg
Concentration	1.0 mg/ml
Storage	Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.
Clonality	Monoclonal
Clone	CO.3E1D4
Preservative	0.09% Sodium Azide
Isotype	IgG2a
Purity	Protein A purified
Buffer	PBS
Target Molecular Weight	82.5 kDa

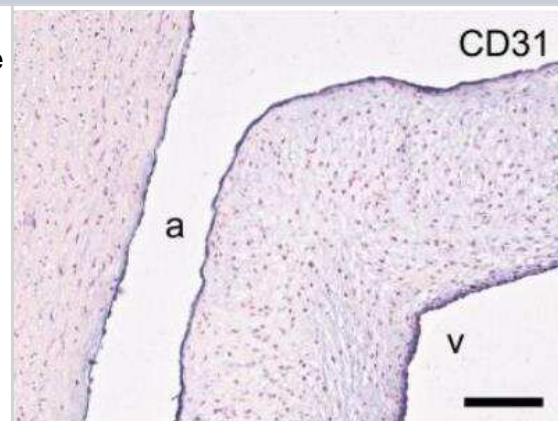
Product Description	
Description	Novus Biologicals Mouse CD31/PECAM-1 Antibody (CO.3E1D4) - BSA Free (NB100-65900) is a monoclonal antibody validated for use in IHC, Flow and IP. Anti-CD31/PECAM-1 Antibody: Cited in 6 publications. All Novus Biologicals antibodies are covered by our 100% guarantee.
Host	Mouse
Gene ID	5175
Gene Symbol	PECAM1
Species	Sheep
Reactivity Notes	Predicted cross-reactivities: Goat, Bovine
Specificity/Sensitivity	NB100-65900 is specific for ovine CD31, also known as PECAM-1. Ovine CD31 is predominantly expressed by peripheral blood platelets and a small percentage of lymphocytes. CD31 is also highly expressed by ovine endothelial cells.
Immunogen	Ovine leucocytes

Product Application Details	
Applications	Immunohistochemistry-Paraffin, Flow Cytometry, Immunohistochemistry, Immunohistochemistry-Frozen, Immunoprecipitation
Recommended Dilutions	Flow Cytometry 1:10-1:25, Immunohistochemistry 1:50, Immunoprecipitation 1:10-1:500, Immunohistochemistry-Paraffin, Immunohistochemistry-Frozen 1:50
Application Notes	Use in Immunohistochemistry-paraffin reported in scientific literature (PMID: 30159315). Clone CO.3E1D4 is reported to inhibit homotypic leucocyte aggregation induced by anti CD43 antibodies. Removal of sodium azide is recommended prior to use in functional assays.

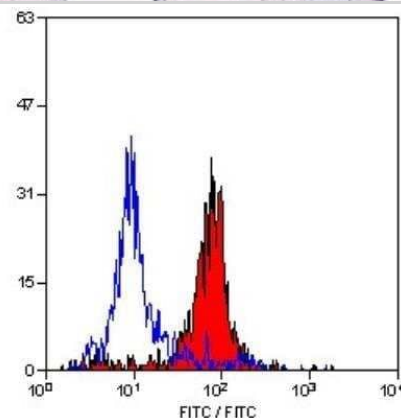


## Images

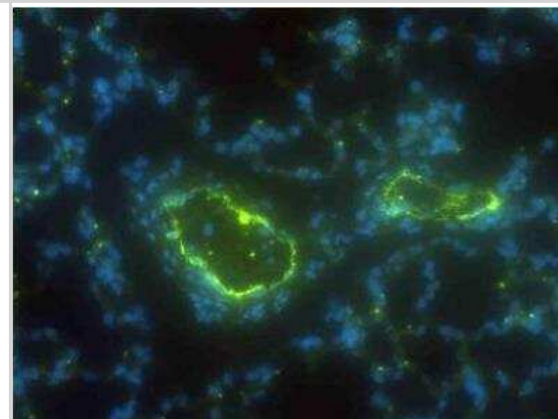
**Immunohistochemistry-Paraffin: CD31/PECAM-1 Antibody (CO.3E-1D4) [NB100-65900]** - Valvular endothelial cell (VEC) markers. Sections of the sheep aortic valve leaflet stained with antibodies against the endothelial cell markers CD31/PECAM-1, CD34, VE-Cadherin (CD144), or von Willebrand Factor (vWF). Represented are the aortic wall and a section of the valvular leaflet (near the free edge), with "a" and "v" indicating the aortic and ventricular sides of the leaflet, respectively. Scale bars, 100  $\mu$ m. Image collected and cropped by CiteAb from the following publication ([www.frontiersin.org/article/10.3389/fcvm.2018.00105/full](http://www.frontiersin.org/article/10.3389/fcvm.2018.00105/full)) licensed under a CC-BY license.



**Flow Cytometry: CD31/PECAM-1 Antibody (CO.3E-1D4) [NB100-65900]** - Staining of sheep peripheral blood platelets with Mouse anti Bovine CD31/PECAM-1 Antibody (CO.3E-1D4).



**Immunohistochemistry-Frozen: CD31/PECAM-1 Antibody (CO.3E-1D4) [NB100-65900]** - Bovine Lung stained with CD31 (green) and DAPI counterstain. Image provided courtesy of Hala Nijmeh, PhD and the PI, Evgenia V. Gerasimovskaya, PhD. Section of Critical Care Medicine, Department of Pediatrics, University of Colorado Anschutz Medical Center.



## Publications

Collie D, Wright SH, Del-Pozo J et al. Regional and organ-level responses to local lung irradiation in sheep Scientific reports 2021-05-05 [PMID: 33953285] (IF/IHC, Bovine)

Bourebaba L, Kornicka-Garbowska K, Al Naem M et al MSI-1436 improves EMS adipose derived progenitor stem cells in the course of adipogenic differentiation through modulation of ER stress, apoptosis, and oxidative stress Stem Cell Res Ther 2021-02-04 [PMID: 33536069] (FLOW, Equine)

### Details:

Citation using the Allophycocyanin version of this antibody.

Dekker S, van Geemen D, van den Bogaardt AJ et al. Sheep-Specific Immunohistochemical Panel for the Evaluation of Regenerative and Inflammatory Processes in Tissue-Engineered Heart Valves Front Cardiovasc Med 2018-08-15 [PMID: 30159315] (IHC-P, Sheep)

Lu S, McGough MAP, Shiels SM et al. Settable polymer/ceramic composite bone grafts stabilize weight-bearing tibial plateau slot defects and integrate with host bone in an ovine model. Biomaterials. 2018-10-01 [PMID: 29960822] (IF/IHC, Sheep)

Kluin J, Talacua H, Smits AI et al. In situ heart valve tissue engineering using a bioresorbable elastomeric implant - From material design to 12 months follow-up in sheep. Biomaterials. 2017-05-01 [PMID: 28253994]

Nijmeh H, Balasubramaniam V, Burns N et al. High proliferative potential endothelial colony-forming cells contribute to hypoxia-induced pulmonary artery vasa vasorum neovascularization Am. J. Physiol. Lung Cell Mol. Physiol. 2014-04-01 [PMID: 24508729] (IHC-Fr, Bovine)

### Details:

CD31/PECAM-1 antibody used at 1:50 dilution in IHC-Fr application for 4% paraformaldehyde fixed frozen sections of lung tissue and pulmonary arteries that were collected from male Holstein calves subjected to normoxic (kept at ambient Denver 91 altitude; PB = 640 mmHg for 2 weeks) and chronically hypoxic (exposed to hypobaric hypoxia; PB = 430 92 mmHg for 2 weeks). Figure 1d-i shows the immunostaining of endothelial cells/CD31+ve in main pulmonary artery/MPA vasa vasorum/VV sections from control and chronically hypoxic animals.





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### **Products Related to NB100-65900-0.1mg**

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HAF007	Goat anti-Mouse IgG Secondary Antibody [HRP]
NB7539	Goat anti-Mouse IgG (H+L) Secondary Antibody [HRP]
NBP1-96778	Mouse IgG2a Isotype Control (M2A)
NB100-65900APC	CD31/PECAM-1 Antibody (CO.3E1D4) [Allophycocyanin]

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### **Limitations**

This product is for research use only and is not approved for use in humans or in clinical diagnosis. Primary Antibodies are guaranteed for 1 year from date of receipt.

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