

# Product Datasheet

## CD31/PECAM-1 Antibody (C31.3)

### NBP2-15202-0.1mg

Unit Size: 0.1 mg

Store at 4C.

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[technical@novusbio.com](mailto:technical@novusbio.com)

#### Publications: 7

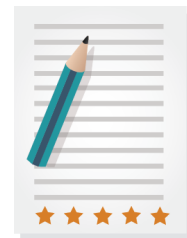
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**NBP2-15202-0.1mg**

CD31/PECAM-1 Antibody (C31.3)

Product Information	
Unit Size	0.1 mg
Concentration	0.2 mg/ml
Storage	Store at 4C.
Clonality	Monoclonal
Clone	C31.3
Preservative	0.05% Sodium Azide
Isotype	IgG1 Kappa
Purity	Protein A or G purified
Buffer	10 mM PBS with 0.05% BSA
Target Molecular Weight	82.5 kDa

Product Description	
Description	200ug/ml of antibody purified from Bioreactor Concentrate by Protein A or G. Prepared in 10 mM PBS with 0.05% BSA & 0.05% azide. Also available WITHOUT BSA & azide at 1.0 mg/ml. (NBP2-33154)  Antibody with azide - store at 2 to 8C. Antibody without azide - store at -20 to -80C.
Host	Mouse
Gene ID	5175
Gene Symbol	PECAM1
Species	Human
Reactivity Notes	Weakly reacts with Rat.
Marker	Endothelial Cell Marker
Specificity/Sensitivity	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 monoclonal antibody 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.
Immunogen	Recombinant full-length human CD31/PECAM-1 protein (Uniprot: P16284)

Product Application Details	
Applications	Western Blot, Flow Cytometry, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Frozen, Immunohistochemistry-Paraffin
Recommended Dilutions	Western Blot 1-2 ug/ml, Flow Cytometry 1-2 ug/million cells, Immunohistochemistry, Immunocytochemistry/ Immunofluorescence 1-2 ug/ml, Immunohistochemistry-Paraffin 1-2 ug/ml, Immunohistochemistry-Frozen 0.5-1ug/ml

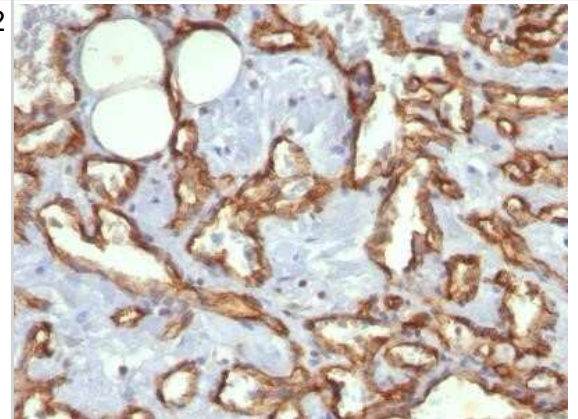


**Application Notes**

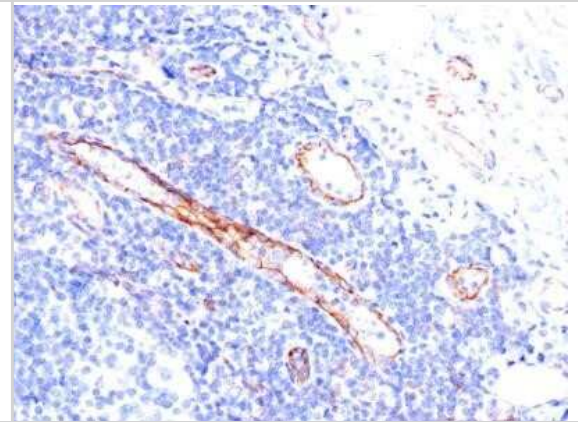
Immunohistochemistry (Formalin-fixed): 1-2ug/ml for 30 minutes at RT. Staining of formalin-fixed tissues requires heating tissue sections in 10mM Tris with 1mM EDTA, pH 9.0, for 45 min at 95C followed by cooling at RT for 20 minutes. Optimal dilution for a specific application should be determined.

**Images**

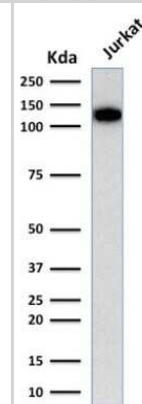
Immunohistochemistry-Frozen: CD31/PECAM-1 Antibody (C31.3) [NBP2-15202] - Analysis using Azide/BSA FREE version of CD31/PECAM-1 Antibody (C31.3). Formalin-paraffin human Angiosarcoma.



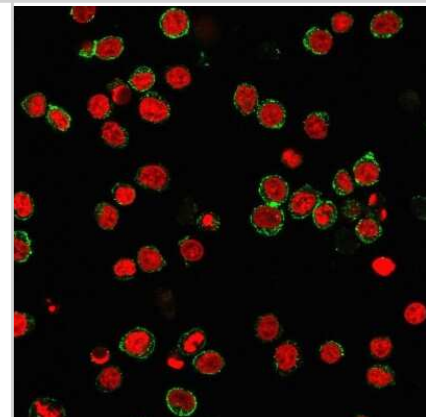
Immunohistochemistry-Paraffin: CD31/PECAM-1 Antibody (C31.3) [NBP2-15202] - Analysis using the Azide and BSA Free version of CD31/PECAM-1 Antibody (C31.3). Staining of human tonsil.



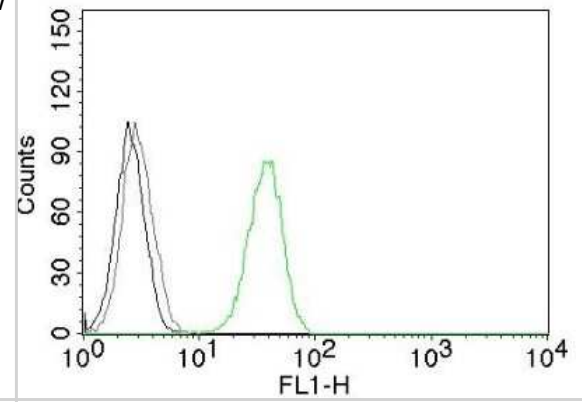
Western Blot: CD31/PECAM-1 Antibody (C31.3) [NBP2-15202] - Western Blot Analysis of human Jurkat cell lysate using CD31/PECAM-1 Antibody (C31.3).



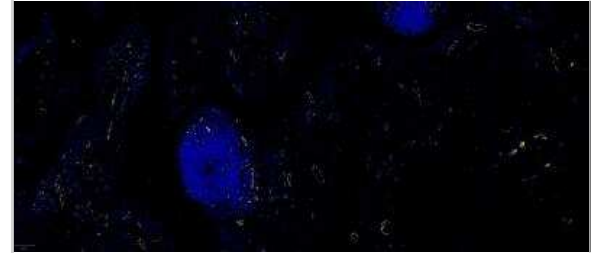
Immunocytochemistry/Immunofluorescence: CD31/PECAM-1 Antibody (C31.3) [NBP2-15202] - Immunofluorescence Analysis of PFA-fixed Jurkat cells labeled with CD31/PECAM-1 Antibody (C31.3) followed by Goat anti-Mouse IgG-CF488 (Green). The nuclear counterstain is Nucspot (Red)



Flow Cytometry: CD31/PECAM-1 Antibody (C31.3) [NBP2-15202] - Flow Cytometric analysis of human CD31 on Jurkat cells. Black: cells alone; grey: Isotype Control; Green: AF488-labeled CD31/PECAM-1 Antibody (C31.3).



Immunohistochemistry-Paraffin: CD31/PECAM-1 Antibody (C31.3) [NBP2-15202] - Staining with CD31/PECAM-1 Antibody (C31.3) [Alexa Fluor® 647] (NBP2-33154AF647) using GE Cell DIVE (20x) on Human Rheumatoid Arthritis synovium (10 ug/ml). Image from verified customer review.



## Publications

Poels, K, Schnitzler, J G Et al. Inhibition of PFKFB3 Hampers the Progression of Atherosclerosis and Promotes Plaque Stability. *Front Cell Dev Biol* 2020-12-08 [PMID: 33282864] (WB, Human)

Luu W, Bjork J, Salo E et al. A novel strategy to engineer pre-vascularized 3-dimensional skin substitutes to achieve efficient, functional engraftment *Sci Rep* 2019-05-24 [PMID: 31127144] (IHC-P, Human)

Giatromanolaki A, Koukourakis MI, Sivridis E et al. Vascular density analysis in colorectal cancer patients treated with vatalanib (PTK787/ZK222584) in the randomised CONFIRM trials. *Br J Cancer*. 2012-09-25 [PMID: 22910317]

Gratzinger D, Zhao S, West R et al. The transcription factor LMO2 is a robust marker of vascular endothelium and vascular neoplasms and selected other entities. *Am J Clin Pathol*. 2009-02-01 [PMID: 19141387] (IHC-P)

### Details:

IHC (P): Figs 2B (myocardial vasculature), 2D (fetal myocardial vasculature). Various other tissues were used in this study and results described.

Jernman J, Valimaki MJ, Louhimo J et al. The novel WHO 2010 classification for gastrointestinal neuroendocrine tumours correlates well with the metastatic potential of rectal neuroendocrine tumours. *Neuroendocrinology*. 2012-01-01 [PMID: 22327359] (IHC-P)

### Details:

IHC (paraffin): Tables 1-3 (gastrointestinal neuroendocrine neoplasms).

Parums DV, Cordell JL, Micklem K et al. JC70: a new monoclonal antibody that detects vascular endothelium associated antigen on routinely processed tissue sections. *J Clin Pathol*. 1990-09-01 [PMID: 2212067] (WB, IHC-Fr, ICC/IF)

### Details:

WB: Fig 1 (spleen and platelets); Immunocytochemistry: Fig 2 (blood smear); IHC (frozen): Fig 3 (tonsil); IHC (paraffin): Figs 4-7 (various tissues).

Govender D, Harilal P, Dada M, Chetty R. CD31 (JC70) expression in plasma cells: an immunohistochemical analysis of reactive and neoplastic plasma cells. *J Clin Pathol*. 1997-06-01 [PMID: 9378815] (IHC-P)

### Details:

IHC (paraffin): Fig 1 (chronic inflammatory infiltrate), Fig 2 (multiple myeloma).





### **Novus Biologicals USA**

10730 E. Briarwood Avenue  
Centennial, CO 80112  
USA  
Phone: 303.730.1950  
Toll Free: 1.888.506.6887  
Fax: 303.730.1966  
nb-customerservice@bio-techne.com

### **Bio-Techne Canada**

21 Canmotor Ave  
Toronto, ON M8Z 4E6  
Canada  
Phone: 905.827.6400  
Toll Free: 855.668.8722  
Fax: 905.827.6402  
canada.inquires@bio-techne.com

### **Bio-Techne Ltd**

19 Barton Lane  
Abingdon Science Park  
Abingdon, OX14 3NB, United Kingdom  
Phone: (44) (0) 1235 529449  
Free Phone: 0800 37 34 15  
Fax: (44) (0) 1235 533420  
info.EMEA@bio-techne.com

### **General Contact Information**

www.novusbio.com  
Technical Support: nb-technical@bio-techne.com  
Orders: nb-customerservice@bio-techne.com  
General: novus@novusbio.com

### **Products Related to NBP2-15202-0.1mg**

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HAF007	Goat anti-Mouse IgG Secondary Antibody [HRP]
NB720-B	Rabbit anti-Mouse IgG (H+L) Secondary Antibody [Biotin]
NBP1-43319-0.5mg	Mouse IgG1 Kappa Isotype Control (P3.6.2.8.1)
NBP2-54655PEP	CD31/PECAM-1 Recombinant Protein Antigen

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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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