Product Datasheet

VCAM-1/CD106 Antibody (6G9) - BSA Free
NBP1-47491

Unit Size: 0.1 ml

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

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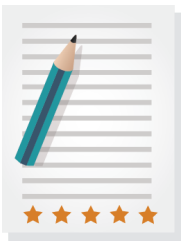


NBP1-47491

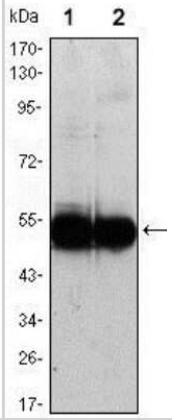
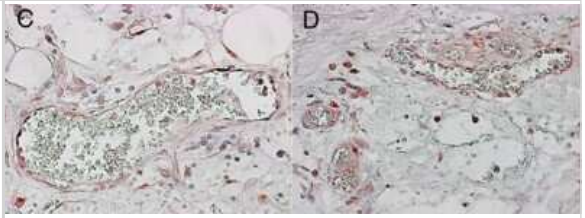
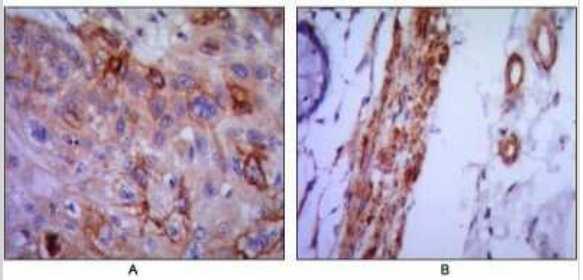
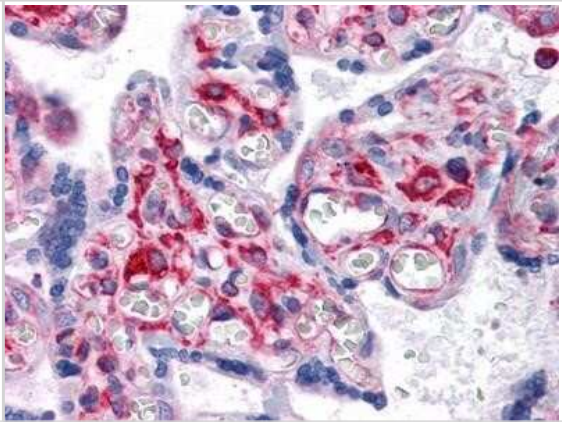
VCAM-1/CD106 Antibody (6G9) - BSA Free

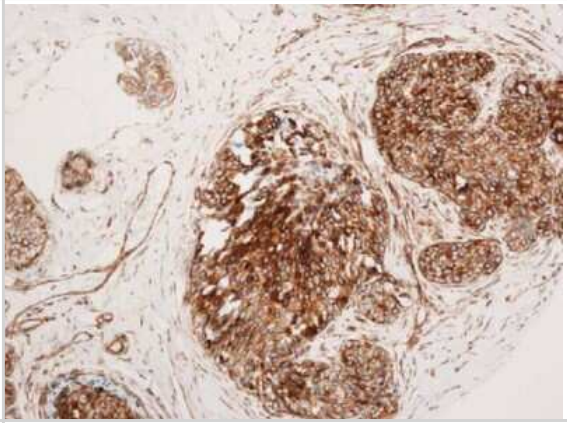
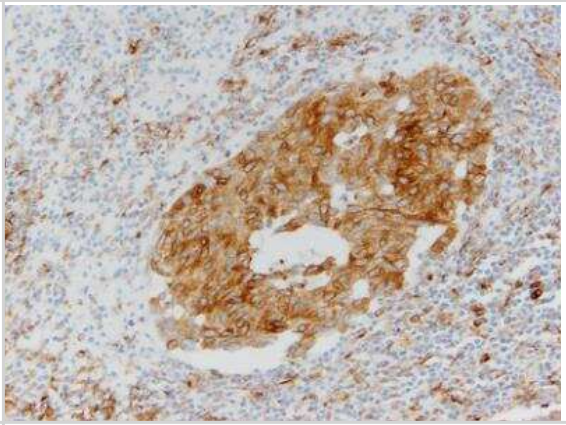
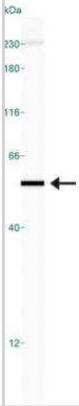
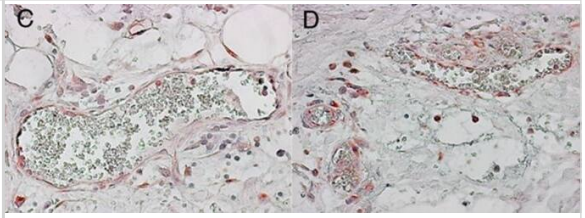
Product Information	
Unit Size	0.1 ml
Concentration	1.0 mg/ml
Storage	Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.
Clonality	Monoclonal
Clone	6G9
Preservative	0.03% Sodium Azide
Isotype	IgG1
Purity	Ammonium sulfate precipitation
Buffer	PBS
Target Molecular Weight	81 kDa

Product Description	
Host	Mouse
Gene ID	7412
Gene Symbol	VCAM1
Species	Human, Mouse
Reactivity Notes	Use in Mouse reported in scientific literature (PMID: 32243809).
Immunogen	This VCAM-1/CD106 Antibody (6G9) was developed against a purified recombinant fragment of human VCAM-1 expressed in E. coli. [Uniprot: P19320]

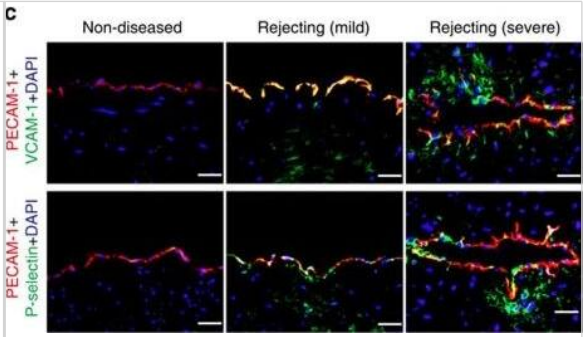
Product Application Details	
Applications	Western Blot, Simple Western, ELISA, Immunoblotting, Immunohistochemistry, Immunohistochemistry-Paraffin, Immunoprecipitation
Recommended Dilutions	Western Blot 1:500-1:2000, Simple Western 1:1000, ELISA 1:10000, Immunohistochemistry 1:200-1:1000, Immunoprecipitation reported in scientific literature (PMID 28569748), Immunohistochemistry-Paraffin 1:200-1:1000, Immunoblotting reported in scientific literature (PMID 28569748)
Application Notes	In Simple Western only 10 - 15 uL of the recommended dilution is used per data point. See Simple Western Antibody Database for Simple Western validation: Tested in HUVEC lysate 0.5 mg/mL, separated by Size, antibody dilution of 1:1000, apparent MW was 56 kDa. Separated by Size-Wes, Sally Sue/Peggy Sue.

Images

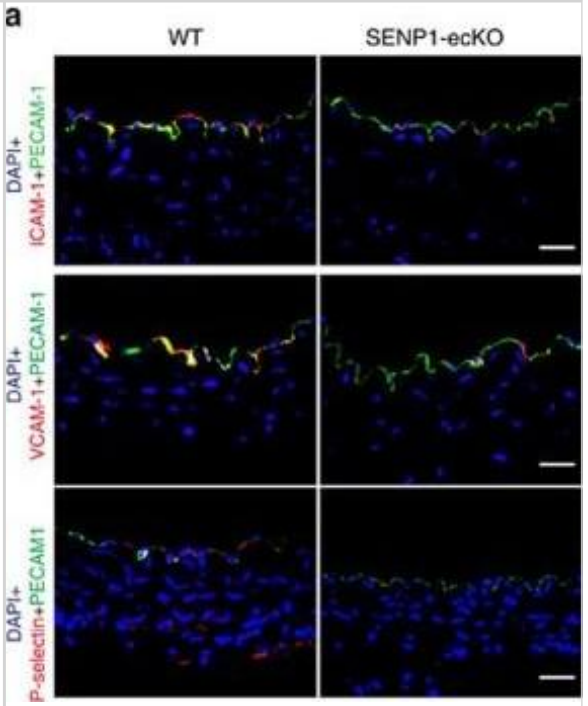
Western Blot: VCAM-1/CD106 Antibody (6G9) [NBP1-47491] - Using VCAM1 mouse mAb against (1) HUVEC and (2) EC cell lysate.	
Immunohistochemistry: VCAM-1/CD106 Antibody (6G9) [NBP1-47491] - Photomicrographs of two separate gut sections from a patient with EHEC colitis. Panels (C) and (D) are stained to show VCAM-1/CD106 expression in endothelium, indicating inflammatory activation (40x magnification). Image collected and cropped by CiteAb from the following publication (https://dx.plos.org/10.1371/journal.pone.0055278), licensed under a CC-BY license.	
Immunohistochemistry-Paraffin: VCAM-1/CD106 Antibody (6G9) [NBP1-47491] - (A) human lung cancer and (B) colon cancer using VCAM1 mouse mAb with DAB staining.	
Immunohistochemistry-Paraffin: VCAM-1/CD106 Antibody (6G9) [NBP1-47491] - Human placenta tissues using VCAM1 mouse mAb.	

Immunohistochemistry: VCAM-1/CD106 Antibody (6G9) [NBP1-47491] - Breast carcinoma, cytoplasmic staining. IHC image submitted by a verified customer review.	
Immunohistochemistry-Paraffin: VCAM-1/CD106 Antibody (6G9) [NBP1-47491] - FFPE section of human lung cancer. Image at 20X magnification. IHC-P image submitted by a verified customer review.	
Simple Western: VCAM-1/CD106 Antibody (6G9) [NBP1-47491] - Lane view shows a specific band for CD106/VCAM1 in 0.5 mg/mL of HUVEC lysate. This experiment was performed under reducing conditions using the 12-230 kDa separation system.	
Photomicrographs of two separate gut sections from a patient with EHEC colitis.Panels (A) and (B) are stained with CD31 to enumerate endothelium lining the vessels (40× magnification). (C) and (D) are stained to show VCAM-1 expression in endothelium, indicating inflammatory activation (40× magnification).	

Immunocytochemistry/ Immunofluorescence: VCAM-1/CD106 Antibody (6G9) - BSA Free [NBP1-47491] - Enhanced expression of endothelial SENP1 & GATA2 correlates w/ graft arteriosclerosis (GA) progression.Similarly sized human coronary arteries w/ GA from chronically rejecting heart allografts or w/out disease from non-transplanted hearts collected & evaluated by histological analysis. (a,b) Dramatically increased expression of endothelial SENP1 detected in the diseased vessel wall. Endothelial SENP1 expression is demonstrated by immunofluorescence analysis of coronary artery cross-sections that stained for SENP1 & the endothelial marker PECAM-1 w/ DAPI labelling of the nuclei. Representative images are shown in (a) w/ quantification data in (b). Bar represents 50 µm. (c) Induction of endothelial adhesion molecules resulted in a similar augmented pattern as endothelial SENP1. Representative images of immunofluorescence staining for VCAM-1 or P-selectin & PECAM-1 in coronary arteries w/ DAPI counterstaining are shown. Bar represents 50 µm. (d,e) Expression of endothelial GATA2 elevated w/ the progression of aggravated rejection. Representative images of the immunofluorescence staining of coronary arteries for GATA2 & PECAM-1 together w/ DAPI nuclear staining are shown in (d) w/ quantification data in (e). Negative SENP1 & GATA2 staining in the isotype or blocking peptide controls are also shown in (a) & (d). Bar represents 50 µm. Data presented in (b,e) are the mean ±s.e.m. from five separate clinical specimens per group as indicated. *P<0.05, **P<0.01 & ***P<0.0001; one-way ANOVA followed by Bonferroni test. GA, graft arteriosclerosis; PECAM, platelet/endothelial cell adhesion molecule; SENP, sentrin-specific protease; VCAM, vascular cell adhesion molecule. Image collected & cropped by CiteAb from the following publication (https://www.nature.com/articles/ncomms15426), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



Immunocytochemistry/ Immunofluorescence: VCAM-1/CD106 Antibody (6G9) - BSA Free [NBP1-47491] - Loss of endothelial SENP1 inhibits EC activation.(a) Grafts from WT or SENP1-ecKO mice were harvested 3 days post-transplantation. The induction of endothelial adhesion molecules was demonstrated by immunofluorescence staining of ICAM-1, VCAM-1, or P-selectin & PECAM-1 with DAPI labelling of the nuclei. Bar represents 50 µm. (b–e) Attenuated induction of adhesion molecules in SENP1-ecKO MAECs. Flow cytometry analysis of ICAM-1, VCAM-1 & P-selectin in MAECs isolated from WT or SENP1-ecKO mice after TNF or IL-1β treatment. Representative histograms are shown in (b) with the quantification of mean intensity in (c–e). (f–h) Overexpression of the catalytically inactive form of SENP1 (SENP1-Mut) inhibits the induction of adhesion molecules in HUVECs. HUVECs were infected by Ad-SENP1-Mut or vector control (Ad-LacZ) for 24 h, treated with pro-inflammatory cytokines & analysed by flow cytometry in the same way as MAECs. Representative histograms of ICAM-1 & VCAM-1 are shown in (f) with the quantification of mean intensity in (g,h). Data are presented as the mean±s.e.m. from at least three independent experiments. *P<0.05 & **P<0.01; two-way ANOVA followed by Bonferroni post-test. MAEC, mouse aortic endothelial cell. Image collected & cropped by CiteAb from the following publication (https://www.nature.com/articles/ncomms15426), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



Publications

Park, JY;Mani, S;Clair, G;Olson, HM;Paurus, VL;Ansong, CK;Blundell, C;Young, R;Kanter, J;Gordon, S;Yi, AY;Mainigi, M;Huh, DD; A microphysiological model of human trophoblast invasion during implantation Nature communications [PMID: 35292627] (ICC/IF, Human)

Chen PY, Qin L, Li G et al. Smooth Muscle Cell Reprogramming in Aortic Aneurysms Cell Stem Cell 2020-04-02 [PMID: 32243809] (Mouse)

Qiu C, Wang Y, Zhao H et al. The critical role of SENP1-mediated GATA2 deSUMOylation in promoting endothelial activation in graft arteriosclerosis. Nat Commun. 2017-06-01 [PMID: 28569748] (IP, IB, Human)

Chen PY, Qin L, Baeyens N et al. Endothelial-to-mesenchymal transition drives atherosclerosis progression. J Clin Invest 2015-10-26 [PMID: 26517696] (WB)

Ullrich S, Bremer P, Neumann-Grutzeck C et al. Symptoms and Clinical Course of EHEC O104 Infection in Hospitalized Patients: A Prospective Single Center Study. PLoS One 2013-01-01 [PMID: 23460784] (IHC-P, Human)

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

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