

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**

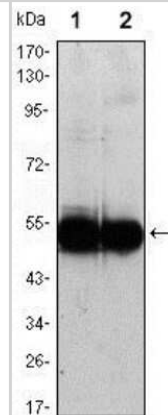
Product Information	
Unit Size	0.1 ml
Concentration	1.0 mg/ml
Storage	Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.
Clonality	Monoclonal
Clone	6G9
Preservative	0.03% Sodium Azide
Isotype	IgG1
Purity	Ammonium sulfate precipitation
Buffer	PBS
Target Molecular Weight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

Product Description	
Description	Novus Biologicals Mouse VCAM-1/CD106 Antibody (6G9) - BSA Free (NBP1-47491) is a monoclonal antibody validated for use in IHC, WB, ELISA, ICC/IF, Simple Western and IP. Anti-VCAM-1/CD106 Antibody: Cited in 5 publications. All Novus Biologicals antibodies are covered by our 100% guarantee.
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]

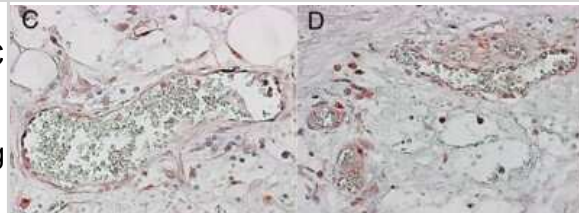
Product Application Details	
Applications	Western Blot, Simple Western, Immunohistochemistry-Paraffin, ELISA, Immunoblotting, Immunohistochemistry, Immunoprecipitation
Recommended Dilutions	Western Blot 1:500-1:2000, Simple Western 1:1000, ELISA 1:10000, Immunohistochemistry 1:200-1:1000, Immunoprecipitation 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

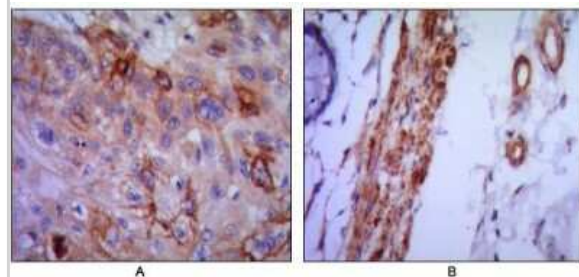
Western Blot: VCAM-1/CD106 Antibody (6G9) [NBP1-47491] - Using VCAM1 mouse mAb against (1) HUVEC and (2) EC cell lysate.



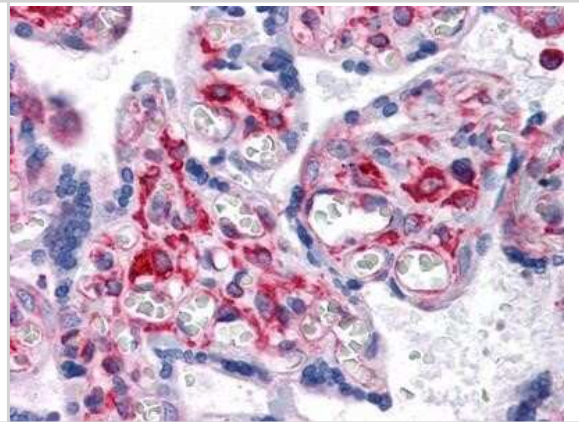
Immunohistochemistry: VCAM-1/CD106 Antibody (6G9) [NBP1-47491] - Photomicrographs of two separate gut sections from a patient with EHEC colitis. Panels (C) and (D) are stained to show VCAM-1/CD106 expression in endothelium, indicating inflammatory activation (40x magnification). Image collected and cropped by CiteAb from the following publication (<https://dx.plos.org/10.1371/journal.pone.0055278>), licensed under a CC-BY license.



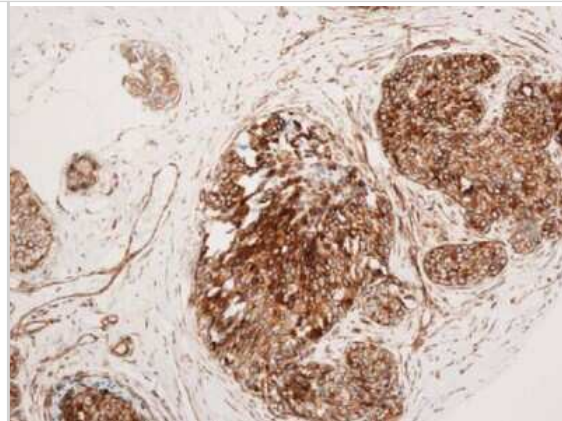
Immunohistochemistry-Paraffin: VCAM-1/CD106 Antibody (6G9) [NBP1-47491] - (A) human lung cancer and (B) colon cancer using VCAM1 mouse mAb with DAB staining.



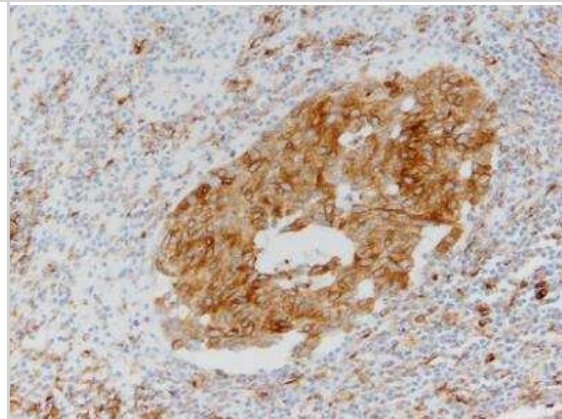
Immunohistochemistry-Paraffin: VCAM-1/CD106 Antibody (6G9) [NBP1-47491] - Human placenta tissues using VCAM1 mouse mAb.



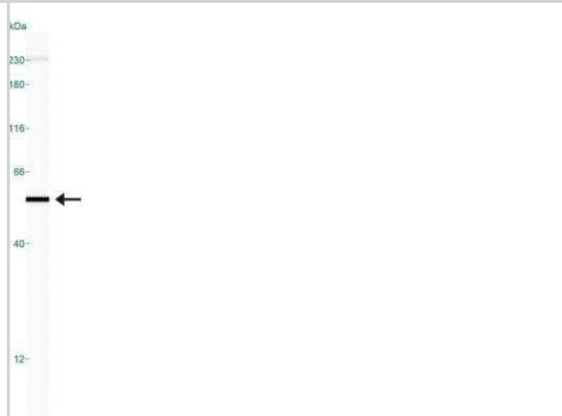
Immunohistochemistry: VCAM-1/CD106 Antibody (6G9) [NBP1-47491] - Breast carcinoma, cytoplasmic staining. IHC image submitted by a verified customer review.



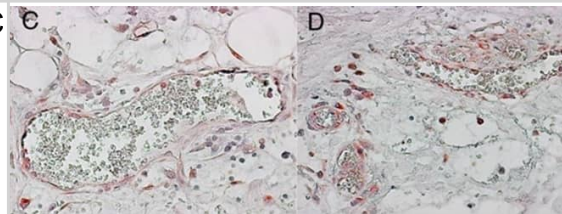
Immunohistochemistry-Paraffin: VCAM-1/CD106 Antibody (6G9) [NBP1-47491] - FFPE section of human lung cancer. Image at 20X magnification. IHC-P image submitted by a verified customer review.



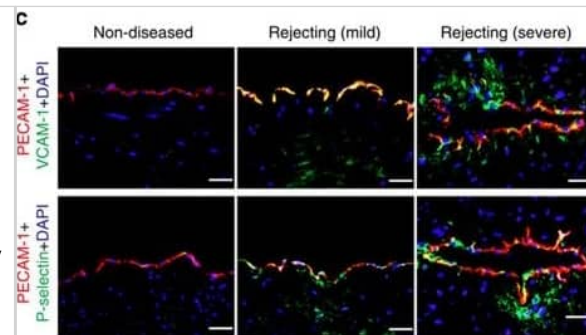
Simple Western: VCAM-1/CD106 Antibody (6G9) [NBP1-47491] - Lane view shows a specific band for CD106/VCAM1 in 0.5 mg/mL of HUVEC lysate. This experiment was performed under reducing conditions using the 12-230 kDa separation system.



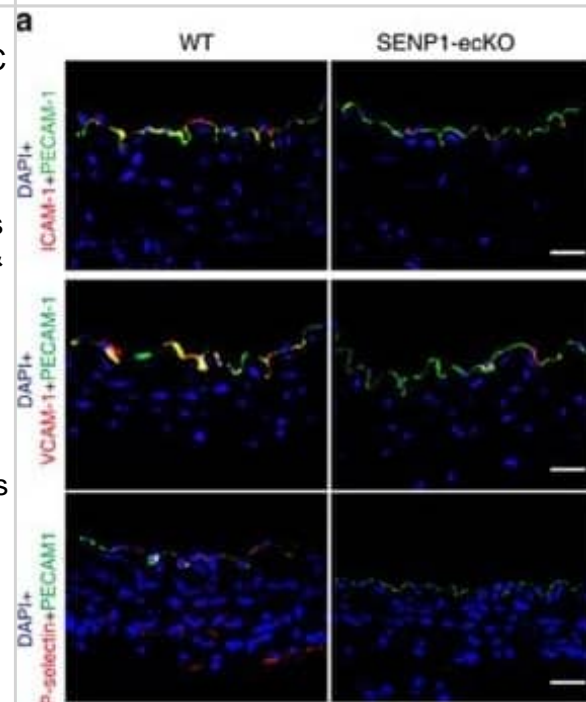
Photomicrographs of two separate gut sections from a patient with EHEC colitis. Panels (A) and (B) are stained with CD31 to enumerate endothelium lining the vessels (40× magnification). (C) and (D) are stained to show VCAM-1 expression in endothelium, indicating inflammatory activation (40× magnification).



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 μ m. (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 μ m. (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 μ m. Data presented in (b,e) are the mean \pm 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 μ m. (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-1 β 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 \pm 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)





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NBP2-33376H	Blue Marker Antibody (6F4-F6) [HRP]
HAF007	Goat anti-Mouse IgG Secondary Antibody [HRP]
NB7539	Goat anti-Mouse IgG (H+L) Secondary Antibody [HRP]
NBP1-97005-0.5mg	Mouse IgG1 Isotype Control (MG1)

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