

Product datasheet

Anti-VCAM1 antibody [EPR5038(2)] ab174279

KO VALIDATED Recombinant RabMAb

[15 References](#) [6 Images](#)

Overview

Product name	Anti-VCAM1 antibody [EPR5038(2)]
Description	Rabbit monoclonal [EPR5038(2)] to VCAM1
Host species	Rabbit
Tested applications	Suitable for: WB, IP Unsuitable for: Flow Cyt, ICC/IF or IHC-P
Species reactivity	Reacts with: Mouse, Human Predicted to work with: Rat
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
Positive control	Human fetal kidney, HuT-78, NIH3T3, HUVEC, bEND.3, Hut-78 and LADMAC lysates; Wild-type A549 TNF- α treated (10 ng/mL, 16h) cell lysate.
General notes	<p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none"> - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production <p>For more information see here.</p> <p>Our RabMAb[®] technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb[®] patents.</p>

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.
Storage buffer	pH: 7.20 Preservative: 0.01% Sodium azide Constituents: 9% PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA, 50% Tissue culture supernatant
Purity	Tissue culture supernatant
Clonality	Monoclonal

Clone number EPR5038(2)

Isotype IgG

Applications

The Abpromise guarantee Our [Abpromise guarantee](#) covers the use of ab174279 in the following tested applications. The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB		1/1000 - 1/5000. Detects a band of approximately 100 kDa (predicted molecular weight: 81 kDa). Stimulation may be required to allow detection of the target protein due to low levels of endogenous expression in some samples. Please see images below for recommended treatment conditions and positive controls.
IP		1/10 - 1/100.

Application notes Is unsuitable for Flow Cyt, ICC/IF or IHC-P.

Target

Function Important in cell-cell recognition. Appears to function in leukocyte-endothelial cell adhesion. Interacts with the beta-1 integrin VLA4 on leukocytes, and mediates both adhesion and signal transduction. The VCAM1/VLA4 interaction may play a pathophysiologic role both in immune responses and in leukocyte emigration to sites of inflammation.

Tissue specificity Expressed on inflamed vascular endothelium, as well as on macrophage-like and dendritic cell types in both normal and inflamed tissue.

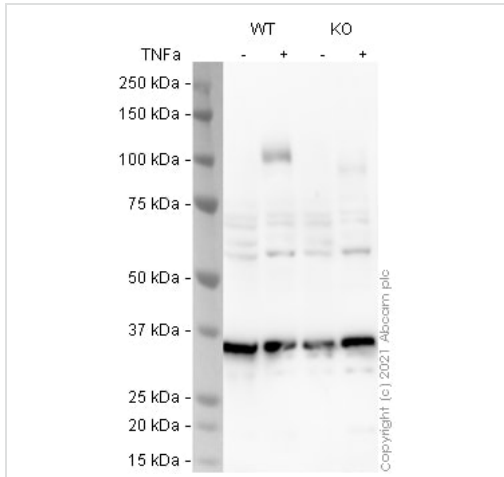
Sequence similarities Contains 7 Ig-like C2-type (immunoglobulin-like) domains.

Domain Either the first or the fourth Ig-like C2-type domain is required for VLA4-dependent cell adhesion.

Post-translational modifications Sialoglycoprotein.

Cellular localization Membrane.

Images



Western blot - Anti-VCAM1 antibody [EPR5038(2)] (ab174279)

All lanes : Anti-VCAM1 antibody [EPR5038(2)] (ab174279) at 1/1000 dilution

Lane 1 : Wild-type A549 cell lysate

Lane 2 : Wild-type A549 TNF-a treated (10 ng/mL, 16h) cell lysate

Lane 3 : VCAM1 knockout A549 cell lysate

Lane 4 : VCAM1 knockout A549 TNF-a treated (10 ng/mL, 16h) cell lysate

Lysates/proteins at 30 µg per lane.

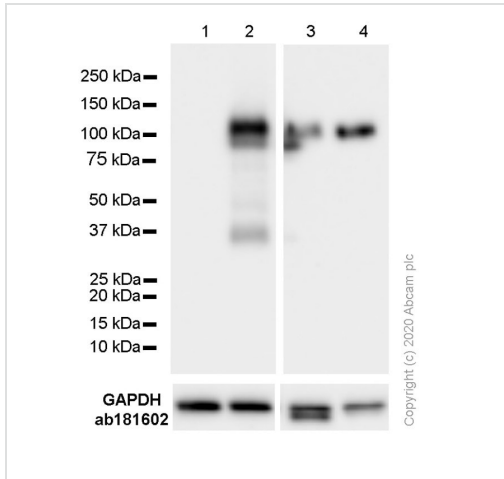
Performed under reducing conditions.

Predicted band size: 81 kDa

Observed band size: 105 kDa

Exposure time: 20 seconds

ab174279 was shown to react with VCAM1 in treated wild-type A549 cells in western blot. Loss of signal was observed when treated VCAM1 knockout cell line [ab273758](#) (knockout cell lysate [ab275504](#)) was used. Membranes were blocked in 3 % milk in TBS-T (0.1 % Tween[®]) before incubation with ab174279 overnight at 4 °C at a 1 in 1000 dilution. Blots were incubated with HRP conjugated Goat anti-Rabbit (H+L) secondary antibody at 1 in 5000 for 1 hour at room temperature before development with Optiblot ECL reagent ([ab133456](#)) and imaging.



Western blot - Anti-VCAM1 antibody [EPR5038(2)] (ab174279)

All lanes : Anti-VCAM1 antibody [EPR5038(2)] (ab174279) at 1/1000 dilution

Lane 1 : HUVEC (Human umbilical vein endothelial cell) whole cell lysates

Lane 2 : HUVEC treated with 10 ng/ml TNF- α for 16 h, whole cell lysate

Lane 3 : bEND.3 (Mouse brain endothelioma) whole cell lysates

Lane 4 : bEND.3 treated with 10 μ g/ml LPS for 24 h, whole cell lysate

Lysates/proteins at 20 μ g per lane.

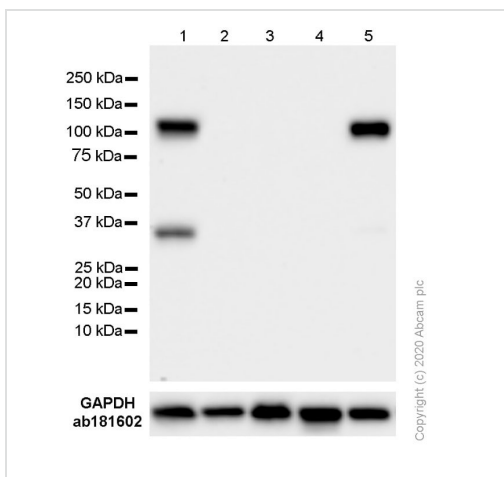
Secondary

All lanes : Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/20000 dilution

Predicted band size: 81 kDa

Observed band size: 100 kDa

Blocking and diluting buffer and concentration: 5% NFDN/TBST.



Western blot - Anti-VCAM1 antibody [EPR5038(2)] (ab174279)

All lanes : Anti-VCAM1 antibody [EPR5038(2)] (ab174279) at 1/1000 dilution

Lane 1 : Hut-78 (Human Sezary syndrome cutaneous T lymphocyte) whole cell lysates

Lane 2 : SK-OV-3 (Human ovarian cancer epithelial cell) whole cell lysates

Lane 3 : RAW 264.7 (Mouse Abelson murine leukemia virus-induced tumor macrophage) whole cell lysates

Lane 4 : J774A.1 (Mouse reticulum cell sarcoma monocyte macrophage) whole cell lysates

Lane 5 : LADMAC (Mouse bone marrow monocyte macrophage) whole cell lysates

Lysates/proteins at 20 µg per lane.

Secondary

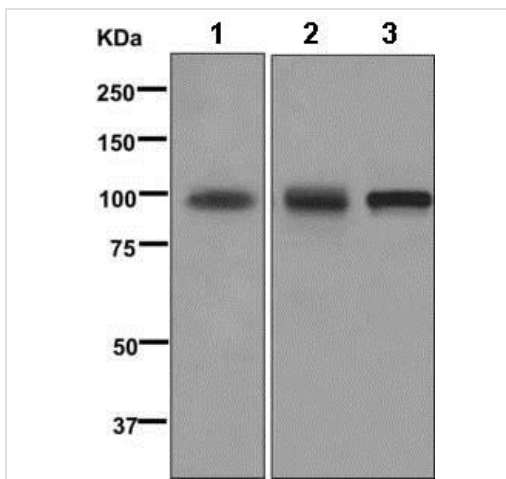
All lanes : Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) at 1/20000 dilution

Predicted band size: 81 kDa

Observed band size: 100 kDa

Exposure time: 15 seconds

Blocking/Diluting buffer and concentration: 5% NFDM/TBST.



Western blot - Anti-VCAM1 antibody [EPR5038(2)] ([ab174279](#))

All lanes : Anti-VCAM1 antibody [EPR5038(2)] ([ab174279](#)) at 1/1000 dilution

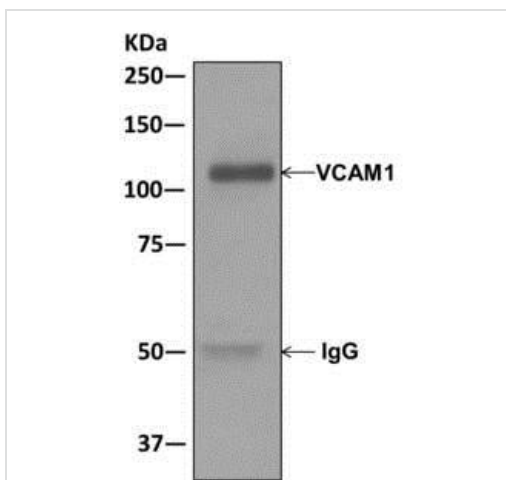
Lane 1 : Human fetal kidney lysate

Lane 2 : HuT-78 lysate

Lane 3 : NIH3T3 lysate

Lysates/proteins at 10 µg per lane.

Predicted band size: 81 kDa



Immunoprecipitation - Anti-VCAM1 antibody [EPR5038(2)] ([ab174279](#))

Immunoprecipitation. [ab174279](#) at 1/1000 labeling VCAM1 immunoprecipitated from NIH3T3 cell lysate using [ab174279](#) at 1/10.

Why choose a recombinant antibody?



Research with confidence
Consistent and reproducible results



Long-term and scalable supply
Recombinant technology



Success from the first experiment
Confirmed specificity



Ethical standards compliant
Animal-free production

Anti-VCAM1 antibody [EPR5038(2)] (ab174279)

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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