

Datasheet for ABIN5519072  
**anti-VCAM1 antibody (AA 25-270)**



[Go to Product page](#)

3 Images

7 Publications

## Overview

Quantity:	100 µg
Target:	VCAM1
Binding Specificity:	AA 25-270
Reactivity:	Mouse, Rat
Host:	Rabbit
Clonality:	Polyclonal
Application:	Western Blotting (WB), ELISA, Immunohistochemistry (Paraffin-embedded Sections) (IHC (p))

## Product Details

Purpose:	Rabbit IgG polyclonal antibody for VCAM1 detection. Tested with WB, IHC-P, Direct ELISA in Mouse,Rat.
Immunogen:	E. coli-derived mouse VCAM1 recombinant protein (Position: F25-L270).
Isotype:	IgG
Cross-Reactivity (Details):	No cross reactivity with other proteins.
Characteristics:	<p>Rabbit IgG polyclonal antibody for VCAM1 detection. Tested with WB, IHC-P, Direct ELISA in Mouse,Rat.</p> <p>Gene Name: vascular cell adhesion molecule 1</p> <p>Protein Name: Vascular cell adhesion protein 1</p>
Purification:	Immunogen affinity purified.

## Target Details

Target:	VCAM1
Alternative Name:	Vcam1 ( <a href="#">VCAM1 Products</a> )
Background:	<p>CD106(cluster of differentiation 106) also known as vascular cell adhesion molecule 1(VCAM-1), is a protein that in humans is encoded by the VCAM1 gene. In inflammatory conditions and in cardiac allografts undergoing rejection, VCAM1 is upregulated in endothelium of postcapillary venules. Arterial expression of VCAM1 is also found in experimental models of atherosclerosis in the rabbit. This gene is mapped to chromosome 1 by Southern analysis of somatic cell hybrids. VCAM-1 functions as a cell adhesion molecule. The VCAM-1 protein mediates the adhesion of lymphocytes, monocytes, eosinophils, and basophils to vascularendothelium. It also functions in leukocyte-endothelial cell signal transduction, and it may play a role in the development of atherosclerosis and rheumatoid arthritis. CAM741 works similar to cotransin in that it represses the biosynthesis of VCAM1 cells by blocking the process of cotranslational translocation, which is dependent on the signal peptide of VCAM1. Among the lung metastasis signature genes identified, several, including VCAM1, were functionally validated.</p> <p>Synonyms: Vascular cell adhesion protein 1, V-CAM 1, VCAM-1, CD106, Vcam1, Vcam-1</p>
Gene ID:	22329
UniProt:	<a href="#">P29533</a>
Pathways:	<a href="#">Carbohydrate Homeostasis</a>

## Application Details

Application Notes:	Notes: Tested Species: Species with positive results. Other applications have not been tested. Optimal dilutions should be determined by end users.
Comment:	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (ABIN921124) for Western blot, and HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit (SV0002-1) for IHC(P).
Restrictions:	For Research Use only

## Handling

Format:	Lyophilized
Reconstitution:	Add 0.2 mL of distilled water will yield a concentration of 500 µg/mL.

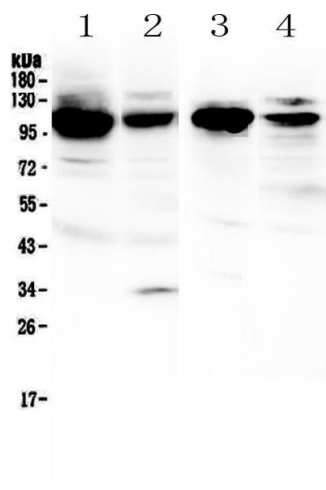
## Handling

Concentration:	500 µg/mL
Buffer:	Each vial contains 5 mg BSA, 0.9 mg NaCl, 0.2 mg Na <sub>2</sub> HPO <sub>4</sub> , 0.05 mg Sodium azide.
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	4 °C, -20 °C
Storage Comment:	At -20°C for one year. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20 °C for a longer time. Avoid repeated freezing and thawing.

## Publications

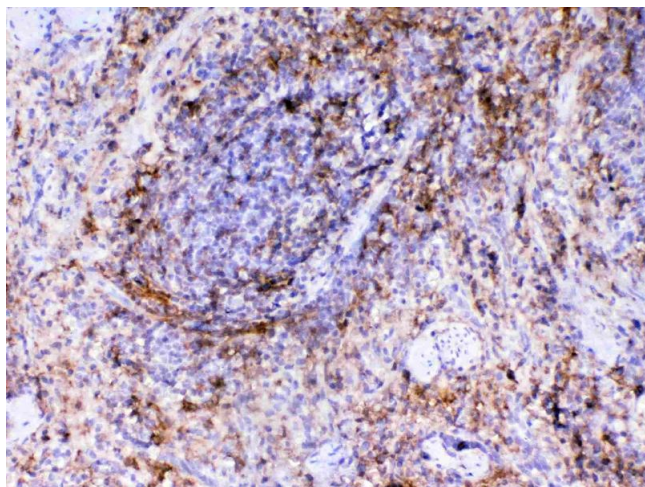
- Product cited in:
- Ma, Pan, Ren, Guo, Guo, Wei, Zheng, Chen: "15-oxoeicosatetraenoic acid mediates monocyte adhesion to endothelial cell." in: **Lipids in health and disease**, Vol. 16, Issue 1, pp. 137, (2018) ([PubMed](#)).
- Wang, Qing, Liu, Liu, Qiao, Cui, He, Zhao, Liu, Yan, Wang, Liang, Guo, Shen, Hou, Chen: "Mesenchymal stromal cells ameliorate oxidative stress-induced islet endothelium apoptosis and functional impairment via Wnt4-β-catenin signaling." in: **Stem cell research & therapy**, Vol. 8, Issue 1, pp. 188, (2018) ([PubMed](#)).
- Hoffman, Adeli: "LDL Receptor Gene-Ablated Hamsters: A Rodent Model of Familial Hypercholesterolemia with Dominant Inheritance and Diet-Induced Coronary Atherosclerosis." in: **EBioMedicine**, Vol. 28, pp. 17-18, (2018) ([PubMed](#)).
- Tian, Tao, Zhao, Tai, Liu, Liu: "Isolation and morphological characterization of ovine amniotic fluid mesenchymal stem cells." in: **Experimental animals**, Vol. 65, Issue 2, pp. 125-34, (2017) ([PubMed](#)).
- Ma, Pan, Chen, Guo, Zhao, Zheng, Chen: "Trimethylamine N-oxide in atherogenesis: impairing endothelial self-repair capacity and enhancing monocyte adhesion." in: **Bioscience reports**, Vol. 37, Issue 2, (2017) ([PubMed](#)).

There are more publications referencing this product on: [Product page](#)



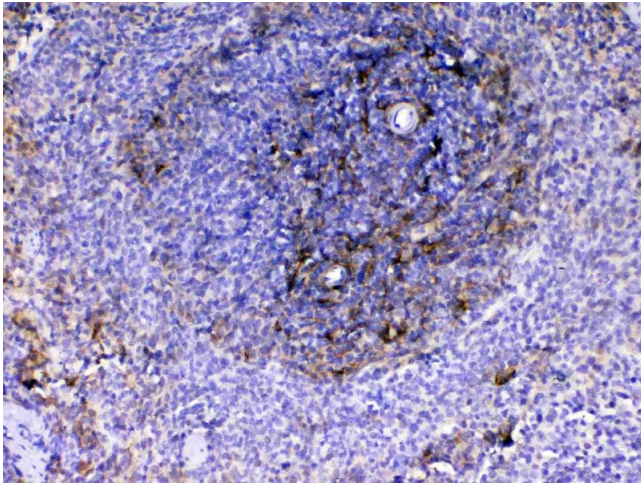
### Western Blotting

**Image 1.** Western blot analysis of VCAM1 using anti-VCAM1 antibody . Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each Lane was loaded with 50ug of sample under reducing conditions. Lane 1: mouse spleen tissue lysates, Lane 2: mouse lung tissue lysates, Lane 3: rat spleen tissue lysates, Lane 4: rat lung tissue lysates. After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA for 50-90 minutes. Blocked the membrane with 5% Non-fat Milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-VCAM1 antigen affinity purified polyclonal antibody (Catalog # ) at 0.5 ug/mL overnight at 4â„ƒ, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:10000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for VCAM1 at approximately 110KD. The expected band size for VCAM1 is at 81KD.



### Immunohistochemistry

**Image 2.** IHC analysis of VCAM1 using anti-VCAM1 antibody .VCAM1 was detected in paraffin-embedded section of mouse spleen tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-VCAM1 Antibody overnight at 4â„ƒ. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37â„ƒ. The tissue section was developed using Streptavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the



chromogen.

### Immunohistochemistry

**Image 3.** IHC analysis of VCAM1 using anti-VCAM1 antibody. VCAM1 was detected in paraffin-embedded section of rat spleen tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-VCAM1 Antibody overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.