

## Anti-VCAM1 Antibody Picoband®

Catalog Number: A01199

### About Vcam1

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.

### Overview

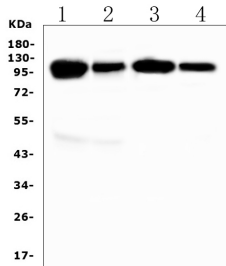
Product Name	Anti-VCAM1 Antibody Picoband®
Reactive Species	Mouse, Rat
Description	Boster Bio Anti-VCAM1 Antibody Picoband® catalog # A01199. Tested in ELISA, IHC, WB applications. This antibody reacts with Mouse, Rat. The brand Picoband indicates this is a premium antibody that guarantees superior quality, high affinity, and strong signals with minimal background in Western blot applications. Only our best-performing antibodies are designated as Picoband, ensuring unmatched performance.
Application	IHC, WB, ELISA (Cap)
Clonality	Polyclonal
Formulation	Each vial contains 4mg Trehalose, 0.9mg NaCl, 0.2mg Na <sub>2</sub> HPO <sub>4</sub> , 0.05mg NaN <sub>3</sub> .
Storage Instructions	Store at -20°C for one year from date of receipt. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for six months. Avoid repeated freeze-thaw cycles.
Host	Rabbit
Uniprot ID	P29533

### Technical Details

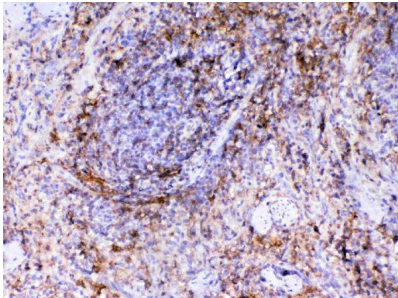
Immunogen	E. coli-derived mouse VCAM1 recombinant protein (Position: F25-L270).
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot, and HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit (SV0002-1) for IHC(P).
Cross Reactivity	No cross-reactivity with other proteins.
Isotype	Rabbit IgG

Form	Lyophilized
Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.
Purification	Immunogen affinity purified.
Suggested Dilutions	Western blot, 0.1-0.5ug/ml Immunohistochemistry (Paraffin-embedded Section), 0.5-1ug/ml ELISA (Cap), 1-5ug/ml

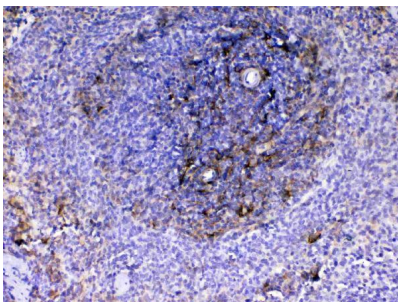
## Anti-VCAM1 Antibody Picoband® (A01199) Images



Western blot analysis of VCAM1 using anti-VCAM1 antibody (A01199). 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 # A01199) at 0.5 ug/mL overnight at 4 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.

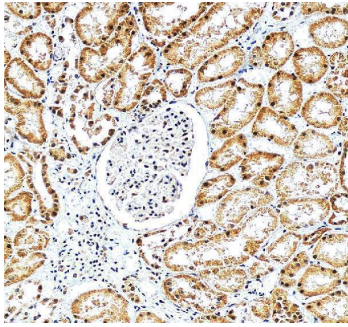


IHC analysis of VCAM1 using anti-VCAM1 antibody (A01199). VCAM1 was detected in paraffin-embedded section of mouse spleen tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-VCAM1 Antibody (A01199) overnight at 4 Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 The tissue section was developed using Streptavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.

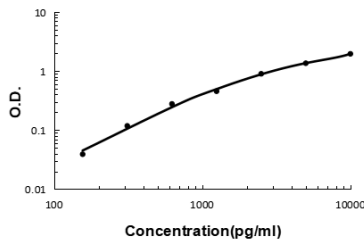


IHC analysis of VCAM1 using anti-VCAM1 antibody (A01199). VCAM1 was detected in paraffin-embedded section of rat spleen tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-VCAM1 Antibody (A01199) overnight at 4 Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 The tissue section was developed using Streptavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.

IHC analysis of VCAM1 using anti-VCAM1 antibody (A01199). VCAM1 was detected in a paraffin-embedded section of human kidney tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 9.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 5 ug/ml rabbit anti-VCAM1 Antibody (A01199) overnight at 4°C.



Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.



Sandwich ELISA - Recombinant mouse VCAM1 protein standard curve. Use in combination with reagents from Mouse VCAM1 ELISA Kit EZ-Set (DIY Antibody Pairs) (EZ0538).

## 16 Publications Citing This Product

1. PubMed ID: 10.3177/jnsv.56.87, Protective Effects of Grape Seed Proanthocyanidin Extracts on Cerebral Cortex of Streptozotocin-Induced Diabetic Rats through Modulating AGEs/RAGE/NF-kappaB Pathway
2. PubMed ID: 10.3390/jcm10225449, Sophocarpine Alleviates Injury-Induced Intima Hyperplasia of Carotid Arteries by Suppressing Inflammation in a Rat Model
3. PubMed ID: 10.5021/ad.2015.27.2.121, Retinoic Acid Promotes Interleukin-4 Plasmid-Dimethylsulfoxide Topical Transdermal Delivery for Treatment of Psoriasis

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Anti-VCAM1 Antibody

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