

Anti-VCAM1 Picoband Antibody

Catalog # ABO12933

Product Information

Application	WB, IHC-P, E
Primary Accession	Vcam1: P29533
Host	Rabbit
Reactivity	Mouse, Rat
Clonality	Polyclonal
Format	Lyophilized
Description	Rabbit IgG polyclonal antibody for VCAM1 detection. Tested with WB, IHC-P, ELISA(Cap) in Mouse;Rat.
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Additional Information

Application Details	Western blot, 0.1-0.5 µg/ml Immunohistochemistry(Paraffin-embedded Section), 0.5-1 µg/ml ELISA(Cap), 0.1-0.5 µg/ml
Subcellular Localization	Isoform 1: Cell membrane; Single-pass type I membrane protein.
Tissue Specificity	Expressed on inflamed vascular endothelium, as well as on macrophage-like and dendritic cell types in both normal and inflamed tissue. Expressed in the bone marrow.
Contents	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.
Immunogen	E. coli-derived mouse VCAM1 recombinant protein (Position: F25-L270).
Purification	Immunogen affinity purified.
Cross Reactivity	No cross reactivity with other proteins.
Storage	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.

Protein Information

Background

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.

Images

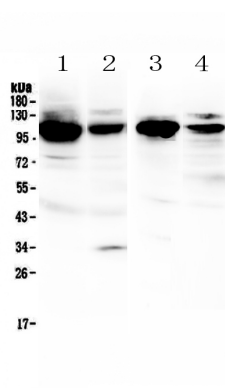


Figure 1. Western blot analysis of VCAM1 using anti-VCAM1 antibody (ABO12933). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50ug of sample under reducing conditions. Lane 1: mouse spleen tissue 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 # ABO12933) at 0.5 ug/mL overnight at 4 °C 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 with Tanon 5200 system. A specific band was detected for VCAM1 at approximately 110KD. The expected band size for VCAM1 is at 81KD.

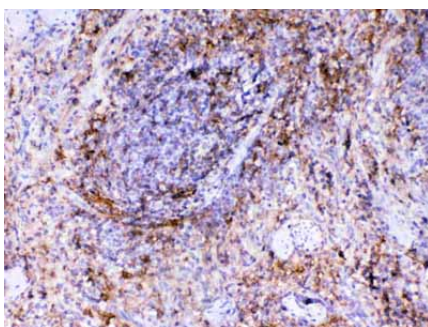
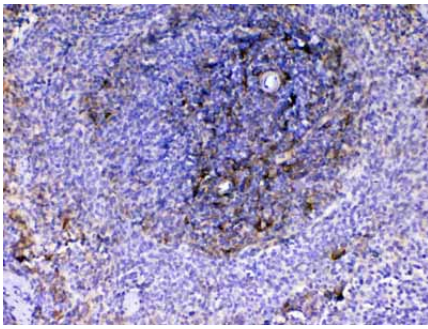


Figure 2. IHC analysis of VCAM1 using anti-VCAM1 antibody (ABO12933). VCAM1 was detected in paraffin-embedded section of mouse spleen tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-VCAM1 Antibody (ABO12933) 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) with DAB as the chromogen.

Figure 3. IHC analysis of VCAM1 using anti-VCAM1 antibody (ABO12933). 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 (ABO12933) 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) with DAB as the chromogen.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.