

Anti-VCAM-1 Antibody
Catalog # ABO11179**Specification**

Anti-VCAM-1 Antibody - Product Information

Application	WB, IHC-P
Primary Accession	P29533
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Format	Lyophilized

Description

Rabbit IgG polyclonal antibody for Vascular cell adhesion protein 1(VCAM1) detection. Tested with WB, IHC-P in Human;Mouse;Rat.

Reconstitution

Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Anti-VCAM-1 Antibody - Additional Information**Other Names**

Vascular cell adhesion protein 1, V-CAM 1, VCAM-1, CD106, Vcam1, Vcam-1

Calculated MW

81317 MW KDa

Application Details

Immunohistochemistry(Paraffin-embedded Section), 0.5-1 µg/ml, Human, Mouse, Rat, By Heat
Western blot, 0.1-0.5 µg/ml, Human, Mouse, Rat

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. .

Protein Name

Vascular cell adhesion protein 1

Contents

Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na₂HPO₄, 0.05mg Thimerosal, 0.05mg NaN₃.

Immunogen

A synthetic peptide corresponding to a sequence at the C-terminus of mouse VCAM1(653-671aa YTIRQAQLQDAGIYECESK), different from the related human sequence by three amino acids, and from the related rat sequence by two amino acids.

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.

Sequence Similarities

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

Anti-VCAM-1 Antibody - Protein Information

Name Vcam1

Synonyms Vcam-1

Function

Cell adhesion glycoprotein predominantly expressed on the surface of endothelial cells that plays an important role in immune surveillance and inflammation. Acts as a major regulator of leukocyte adhesion to the endothelium through interaction with different types of integrins. During inflammatory responses, binds ligands on the surface of activated endothelial cells to initiate the activation of calcium channels and the plasma membrane-associated small GTPase RAC1 leading to leukocyte transendothelial migration. Also serves as a quality- control checkpoint for entry into bone marrow by providing a 'don't- eat-me' stamping in the context of major histocompatibility complex (MHC) class-I presentation.

Cellular Location

[Vascular cell adhesion protein 1]: Cell membrane {ECO:0000250|UniProtKB:P19320}; Single-pass type I membrane protein {ECO:0000250|UniProtKB:P19320}

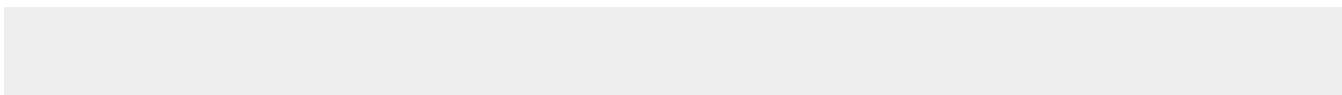
Tissue Location

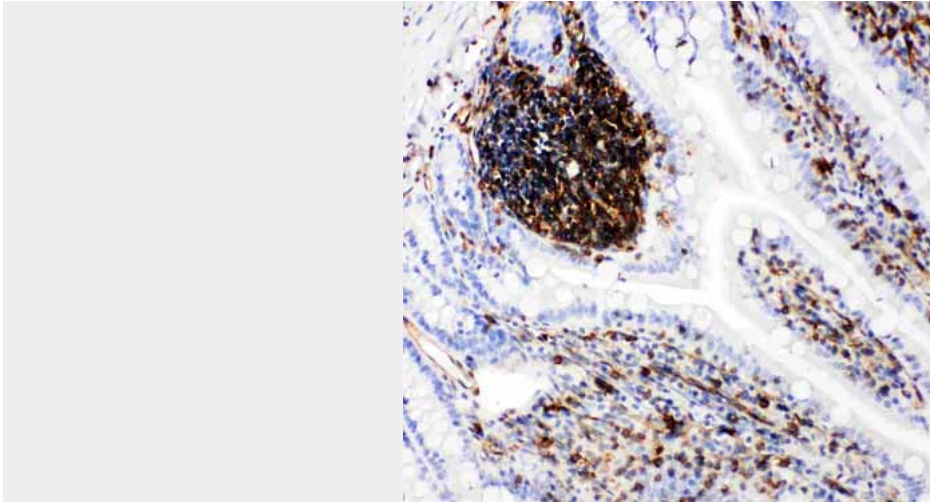
Expressed on inflamed vascular endothelium, as well as on macrophage-like and dendritic cell types in both normal and inflamed tissue. Expressed in the bone marrow

Anti-VCAM-1 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

Anti-VCAM-1 Antibody - Images



Anti-VCAM1 antibody, ABO11179, IHC(P)IHC(P): Rat Intestine Tissue

Anti-VCAM-1 Antibody - 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. Cybulsky et al.(1991) mapped the VCAM1 gene to chromosome 1 by Southern analysis of somatic cell hybrids. Kumar et al.(1994) mapped the murine Vcam1 gene to chromosome 3 near Amy1. VCAM-1 functions as a cell adhesion molecule. The VCAM-1 protein mediates the adhesion of lymphocytes, monocytes, eosinophils, and basophils to vascular endothelium. 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.