

Technical Data Sheet

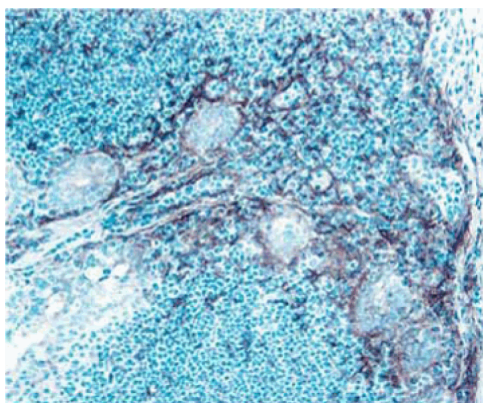
Purified Rat Anti-Mouse CD106

Product Information

Material Number:	550547
Alternate Name:	Vcam-1; Vascular cell adhesion molecule 1; Vascular cell adhesion protein 1
Size:	1.0 ml
Concentration:	31.25 µg/ml
Clone:	429 (MVCAM.A)
Immunogen:	Mouse preadipose cell line PA6
Isotype:	Rat (LEW) IgG2a, κ
Reactivity:	QC Testing: Mouse
Storage Buffer:	Aqueous buffered solution containing BSA, goat serum, and ≤0.09% sodium azide.

Description

The 429 monoclonal antibody specifically binds to both the long (~110 kDa) transmembrane-spanning form and the truncated (~47 kDa) GPI-linked form of vascular cell adhesion molecule-1 (VCAM-1, CD106). CD106 is constitutively expressed on bone marrow stromal cells, myeloid cells, and splenic dendritic cells. Its expression on endothelial cells is upregulated by inflammatory cytokines and in certain pathologic conditions. CD106 expression has also been detected on apoptotic thymocytes, splenocytes, and lymphoid cell lines. VCAM-1 is a counter-receptor for VLA-4 (α4β1 integrin) and LPAM-1 (α4β7 integrin), and the 429 antibody partially blocks VCAM-1-mediated binding functions. Source of the immunogen was the mouse preadipose cell line PA6.



Immunohistochemical staining of CD106. Frozen sections of normal mouse spleen were reacted with the anti-CD 106 antibody. Cells expressing CD106 can be identified by the brown labeling of their cell membranes. Amplification 20X.

Preparation and Storage

Store undiluted at 4°C.

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

Application Notes

Application

Flow cytometry	Routinely Tested
Immunohistochemistry-frozen	Tested During Development
Immunohistochemistry-paraffin	Not Recommended

Recommended Assay Procedure:

Immunohistochemistry: The 429 antibody specific for mouse CD106 is recommended to test for immunohistochemical staining of acetone-fixed frozen sections. Tissues tested were mouse spleen and thymus. The antibody stains bone marrow stromal cells and myeloid cells and activated endothelial cells. The isotype control recommended for use with this antibody is purified rat IgG2a (Cat. No. 559073). For optimal indirect immunohistochemical staining, the 429 antibody should be titrated (1:10 to 1:50 dilution) and visualized via a three-step staining procedure in combination with polyclonal, biotin conjugated anti-rat Igs (multiple adsorbed) (Cat. No. 559286) as the secondary antibody and Streptavidin-HRP (Cat. No. 550946) together with the DAB detection system (Cat. No. 550880). A detailed protocol of the immunohistochemical procedure is available at our website, <http://www.bdbiosciences.com/support/resources>.

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Suggested Companion Products

<u>Catalog Number</u>	<u>Name</u>	<u>Size</u>	<u>Clone</u>
559073	Purified Rat IgG2a κ Isotype Control	0.25 mg	R35-95
559286	Biotin Goat Anti-Rat Ig	0.5 mg	Polyclonal
550946	Streptavidin HRP	50 ml	(none)
550880	DAB Substrate Kit	500 tests	(none)
559148	Antibody Diluent for IHC	125 ml	(none)
551013	Anti-Rat Ig HRP Detection Kit	200 tests	(none)

Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.
3. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
4. This antibody has been developed for the immunohistochemistry application. However, a routine immunohistochemistry test is not performed on every lot. Researchers are encouraged to titrate the reagent for optimal performance.
5. An isotype control should be used at the same concentration as the antibody of interest.
6. Please refer to www.bdbiosciences.com/pharming/protocols for technical protocols.

References

Bevilacqua MP. Endothelial-leukocyte adhesion molecules. *Annu Rev Immunol.* 1993; 11:767-804. (Biology)
Kinashi T, Springer TA. Adhesion molecules in hematopoietic cells. *Blood Cells.* 1994; 20(1):25-44. (Biology)
Kinashi T, St Pierre Y, Springer TA. Expression of glycoposphatidylinositol-anchored and -non-anchored isoforms of vascular cell adhesion molecule 1 in murine stromal and endothelial cells. *J Leukoc Biol.* 1995; 57(1):168-173. (Immunogen)

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