

Technical Data Sheet

Purified NA/LE Rat Anti-Mouse CD106

Product Information

Material Number:	553329
Alternate Name:	Vcam-1; Vascular cell adhesion molecule 1; Vascular cell adhesion protein 1
Size:	0.5 mg
Concentration:	1.0 mg/ml
Clone:	429 (MVCAM.A)
Immunogen:	Mouse preadipose cell line PA6
Isotype:	Rat (LEW) IgG2a, κ
Reactivity:	QC Testing: Mouse
Storage Buffer:	No azide/low endotoxin: Aqueous buffered solution containing no preservative, 0.2 μ m sterile filtered. Endotoxin level is ≤ 0.01 EU/ μ g (≤ 0.001 ng/ μ g) of protein as determined by the LAL assay.

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 ($\alpha 4\beta 1$ integrin) and LPAM-1 ($\alpha 4\beta 7$ integrin), and the 429 antibody partially blocks VCAM-1-mediated binding functions. Source of the immunogen was the mouse preadipose cell line PA6.

Preparation and Storage

Store undiluted at 4°C.

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

This preparation contains no preservatives, thus it should be handled under aseptic conditions.

Application Notes

Application

Flow cytometry	Routinely Tested
Blocking	Reported
Immunofluorescence	Reported
Immunoprecipitation	Reported
Immunohistochemistry-frozen	Reported

Recommended Assay Procedure:

For IHC, we recommend the use of purified 429 mAb in our special formulation for immunohistochemistry, Cat. No. 550547.

Suggested Companion Products

Catalog Number	Name	Size	Clone
553926	Purified NA/LE Rat IgG2a κ Isotype Control	0.5 mg	R35-95
554016	FITC Goat Anti-Rat Ig	0.5 mg	Polyclonal
550547	Purified Rat Anti-Mouse CD106	1.0 ml	429 (MVCAM.A)

Product Notices

- Since applications vary, each investigator should titrate the reagent to obtain optimal results.
- Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.

References

Baron JL, Reich EP, Visintin I, Janeway CA Jr. The pathogenesis of adoptive murine autoimmune diabetes requires an interaction between alpha 4-integrins and vascular cell adhesion molecule-1. *J Clin Invest.* 1994; 93(4):1700-1708. (Clone-specific: Blocking, Immunohistochemistry)

Bevilacqua MP. Endothelial-leukocyte adhesion molecules. *Annu Rev Immunol.* 1993; 11:767-804. (Biology)

Buck CA, Edelman JM, Buck CE, Kennedy G, Baldwin HS. Expression patterns of adhesion receptors in the developing mouse lung: functional implications. *Cell Adhes Commun.* 1996; 4(2):69-87. (Clone-specific: Immunofluorescence)

Kinashi T, Springer TA. Adhesion molecules in hematopoietic cells. *Blood Cells.* 1994; 20(1):25-44. (Clone-specific: Immunohistochemistry)

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: Immunoprecipitation)

Koni PA, Joshi SK, Temann UA, Olson D, Burkly L, Flavell RA. Conditional vascular cell adhesion molecule 1 deletion in mice: impaired lymphocyte migration to bone marrow. *J Exp Med.* 2001; 193(6):741-754. (Clone-specific: Immunohistochemistry)

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