

Technical Data Sheet

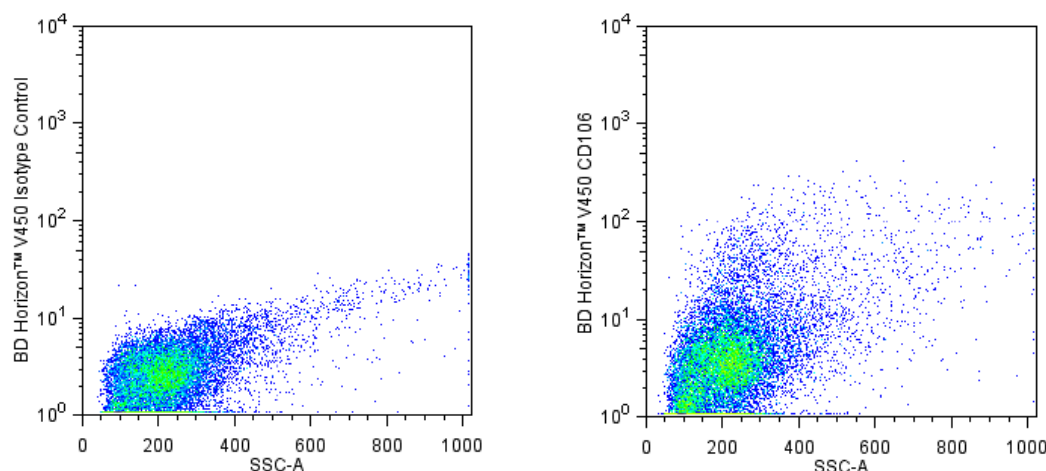
V450 Rat Anti-Mouse CD106**Product Information**

Material Number:	561615
Alternate Name:	Vcam-1; Vascular cell adhesion molecule 1; Vascular cell adhesion protein 1
Size:	50 µg
Concentration:	0.2 mg/ml
Clone:	429 (MVCAM.A)
Immunogen:	Mouse preadipose cell line PA6
Isotype:	Rat (LEW) IgG2a, κ
Reactivity:	QC Tested: Mouse
Storage Buffer:	Aqueous buffered solution containing protein stabilizer 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.

The antibody is conjugated to BD Horizon™ V450, which has been developed for use in multicolor flow cytometry experiments and is available exclusively from BD Biosciences. It is excited by the Violet laser Ex max of 406 nm and has an Em Max at 450 nm. Conjugates with BD Horizon™ V450 can be used in place of Pacific Blue™ conjugates.



Flow cytometric analysis of CD106 expression on mouse bone marrow cells. BALB/c mouse bone marrow cells were stained either with an BD Horizon™ V450 Rat IgG2a, κ Isotype Control (Cat No. 560377, Left Panel) or with the BD Horizon™ V450 Rat Anti-Mouse CD106 antibody (Cat No. 561615, Right Panel). Flow cytometric dot plots showing correlated expression of CD106 (or Ig isotype control staining) versus side light-scatter were derived from total viable cells from bone marrow. Flow cytometry was performed using a BD™ LSR II Flow Cytometer System.

Preparation and Storage

Store undiluted at 4°C and protected from prolonged exposure to light. Do not freeze.

The antibody was conjugated with BD Horizon™ V450 under optimum conditions, and unreacted BD Horizon™ V450 was removed.

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

Application Notes**Application**

Flow cytometry	Routinely Tested
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Suggested Companion Products

Catalog Number	Name	Size	Clone
554656	Stain Buffer (FBS)	500 ml	(none)
560377	V450 Rat IgG2a, κ Isotype Control	0.1 mg	R35-95

Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.
3. An isotype control should be used at the same concentration as the antibody of interest.
4. 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.
5. For fluorochrome spectra and suitable instrument settings, please refer to our Fluorochrome Web Page at www.bdbiosciences.com/colors.
6. BD Horizon™ V450 has a maximum absorption of 406 nm and maximum emission of 450 nm. Before staining with this reagent, please confirm that your flow cytometer is capable of exciting the fluorochrome and discriminating the resulting fluorescence.
7. Pacific Blue™ is a trademark of Molecular Probes, Inc., Eugene, OR.

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)