

# CD106 (VCAM-1) Monoclonal Antibody (STA), PE-Cyanine7, eBioscience™

Product Details	
Size	100 Tests
Species Reactivity	Human
Published Species	Human
Host/Isotype	Mouse / IgG1, kappa
Recommended Isotype Control	Mouse IgG1 kappa Isotype Control (P3.6.2.8.1), PE-Cyanine7, eBioscience™
Class	Monoclonal
Type	Antibody
Clone	STA
Conjugate	PE-Cyanine7
Form	Liquid
Concentration	5 µL/Test
Purification	Affinity chromatography
Storage buffer	PBS, pH 7.2, with 0.1% gelatin, 0.2% BSA
Contains	0.09% sodium azide
Storage Conditions	4° C, store in dark, DO NOT FREEZE!
RRID	AB_2573382

Applications	Tested Dilution	Publications
Flow Cytometry (Flow)	5 µL (0.06 µg)/test	4 Publications

## Product Specific Information

**Description:** The STA monoclonal antibody reacts with human CD106 (Vascular Cell Adhesion Molecule-1, VCAM-1), a 110 kDa transmembrane glycoprotein expressed by myeloid lineage and bone marrow stromal cells. Endothelial cells constitutively express low levels of CD106 and upregulate it upon cytokine stimulation. CD106 binds to Integrin alpha4beta1 (VLA-4, CD49d/CD29) and Integrin alpha4beta7 (LPAM-1). Cytokine-mediated upregulation of CD106 on endothelial cells suggests a role for this antigen in the inflammatory response.

**Applications Reported:** This STA antibody has been reported for use in flow cytometric analysis.

**Applications Tested:** This STA antibody has been pre-titrated and tested by flow cytometric analysis of stimulated HUVEC. This can be used at 5 µL (0.06 µg) per test. A test is defined as the amount (µg) of antibody that will stain a cell sample in a final volume of 100 µL. Cell number should be determined empirically but can range from 10<sup>5</sup> to 10<sup>8</sup> cells/test.

**Light sensitivity:** This tandem dye is sensitive to photo-induced oxidation. Please protect this vial and stained samples from light.

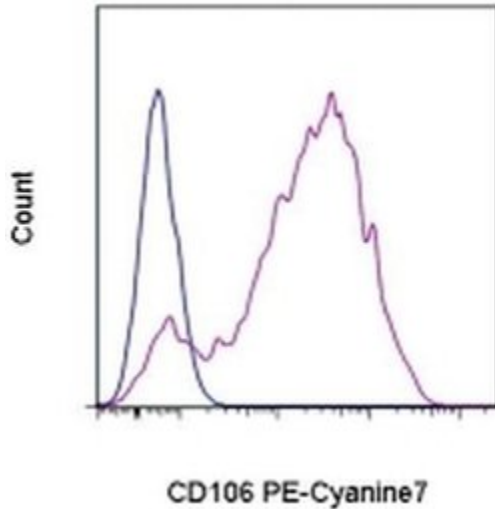
**Fixation:** Samples can be stored in IC Fixation Buffer (cat. 00-8222) (100 µL of cell sample + 100 µL of IC Fixation Buffer) or 1-step Fix/Lyse Solution (cat. 00-5333) for up to 3 days in the dark at 4°C with minimal impact on brightness and FRET efficiency /compensation. Some generalizations regarding fluorophore performance after fixation can be made, but clone specific

performance should be determined empirically.

Excitation: 488-561 nm; Emission: 775 nm; Laser: Blue Laser, Green Laser, Yellow-Green Laser.

Filtration: 0.2 µm post-manufacturing filtered.

## Product Images For CD106 (VCAM-1) Monoclonal Antibody (STA), PE-Cyanine7, eBioscience™



### CD106 (VCAM-1) Antibody (25-1069-42) in Flow

HUVEC were stimulated for 16 hours with Human TNF alpha Recombinant Protein (Product # 14-8329-81) and Human IFN alpha 2 Recombinant Protein, then stained with Mouse IgG1 K Isotype Control PE-Cyanine7 (Product # 25-4714-80) (blue histogram) or Anti-Human CD106 (VCAM-1) PE-Cyanine7 (purple histogram). Total viable cells, as determined by Fixable Viability Dye eFluor® 450 (Product # 65-0863-14), were used for analysis.

[View more figures on thermofisher.com](#)

## 4 References

### Flow Cytometry (4)

#### Molecular medicine reports

#### TNF- enhances vascular cell adhesion molecule-1 expression in human bone marrow mesenchymal stem cells via the NF-B, ERK and JNK signaling pathways.

"Published figure using CD106 (VCAM-1) monoclonal antibody (Product # 25-1069-42) in Flow Cytometry"

Authors: Lu ZY, Chen WC, Li YH, Li L, Zhang H, Pang Y, Xiao ZF, Xiao HW, Xiao Y

#### Species

Not Applicable

#### Dilution

Not Cited

#### Year

2016

#### PLoS one

#### Cytokine induction of VCAM-1 but not IL13R2 on glioma cells: a tale of two antibodies.

"Published figure using CD106 (VCAM-1) monoclonal antibody (Product # 25-1069-42) in Flow Cytometry"

Authors: Mahadev V, Starr R, Wright SL, Martinez C, Jensen MC, Barish ME, Forman SJ, Brown CE

#### Species

Human

#### Dilution

Not Cited

#### Year

2014

[View more Flow references on thermofisher.com](#)

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