

Brilliant Violet 421™ anti-human CD106 Antibody

Catalog# / Size	305815 / 25 tests 305816 / 100 tests
Clone	STA
Regulatory Status	RUO
Workshop	V A013
Other Names	VCAM-1, INCAM-110
Isotype	Mouse IgG1, κ
Description	CD106 is a 110 kD single chain type I glycoprotein also known as VCAM-1 and INCAM-110. It is expressed predominantly on activated vascular endothelium but has also been identified on follicular and interfollicular dendritic cells, some macrophages, bone marrow stromal cells, and non-vascular cell populations within joints, kidney, muscle, heart, placenta, and brain. Expression on endothelial cells as well as many other cells is induced by inflammatory stimuli and cytokines. Activated endothelial cells can release soluble forms of CD106 which can be detected in the blood. CD106 binds the integrins CD49d/CD29 (VLA-4) and α4β7 that contribute to leukocyte adhesion, transmigration, and co-stimulation of T cell proliferation.

Product Details

Verified Reactivity	Human
Antibody Type	Monoclonal
Host Species	Mouse
Formulation	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and BSA (origin USA)
Preparation	The antibody was purified by affinity chromatography and conjugated with Brilliant Violet 421™ under optimal conditions.
Concentration	Lot-specific (to obtain lot-specific concentration, please enter the lot number in our Concentration and Expiration Lookup or Certificate of Analysis online tools.)
Storage & Handling	The antibody solution should be stored undiluted between 2°C and 8°C, and protected from prolonged exposure to light. Do not freeze.
Application	FC - Quality tested
Recommended Usage	<p>Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis. For flow cytometric staining, the suggested use of this reagent is 5 µL per million cells in 100 µL staining volume or 5 µL per 100 µL of whole blood. It is recommended that the reagent be titrated for optimal performance for each application.</p> <p>Brilliant Violet 421™ excites at 405 nm and emits at 421 nm. The standard bandpass filter 450/50 nm is recommended for detection. Brilliant Violet 421™ is a trademark of Sirigen Group Ltd.</p> <p>Learn more about Brilliant Violet™.</p> <p>This product is subject to proprietary rights of Sirigen Inc. and is made and sold under license from Sirigen Inc. The purchase of this product conveys to the buyer a non-transferable right to use the purchased product for research purposes only. This product may not be resold or incorporated in any manner into another product for resale. Any use for therapeutics or diagnostics is strictly prohibited. This product is covered by U.S. Patent(s), pending patent applications and foreign equivalents.</p>
Excitation Laser	Violet Laser (405 nm)
Application Notes	Additional reported applications (for the relevant formats) include: immunofluorescence ³ , immunohistochemical staining of acetone-fixed frozen tissue sections, immunoprecipitation ² , ELISA ² capture for sCD106, and spatial biology (IBEX) ^{5,6} .

Application References

1. Schlossman S, *et al.* Eds. 1995. Leucocyte Typing V. Oxford University Press. New York.
2. Leca G, *et al.* 1995. *J. Immunol.* 154:1069. (ELISA IP)
3. Yen YT, *et al.* 2006. *J. Virol.* 80:2648. (IF) [PubMed](#)
4. Dmitrieva NI, *et al.* 2015. *PLoS One.* 10:128870. [PubMed](#)
5. Radtke AJ, *et al.* 2020. *Proc Natl Acad Sci USA.* 117:33455-33465. (SB) [PubMed](#)
6. Radtke AJ, *et al.* 2022. *Nat Protoc.* 17:378-401. (SB) [PubMed](#)

RRID

AB_2832595 (BioLegend Cat. No. 305815)
AB_2832596 (BioLegend Cat. No. 305816)

Antigen Details

Structure	Ig superfamily, type I glycoprotein, 110 kD
Distribution	Activated endothelial cells, endothelial progenitors, follicular dendritic cells
Function	Leukocyte adhesion, transmigration, costimulation
Ligand/Receptor	VLA-4 (CD49d/CD29)
Cell Type	Dendritic cells, Endothelial cells, Mesenchymal Stem Cells
Biology Area	Cell Adhesion, Cell Biology, Immunology, Neuroinflammation, Neuroscience, Stem Cells
Molecular Family	Adhesion Molecules, CD Molecules
Antigen References	1. Carlos T, <i>et al.</i> 1994. <i>Blood</i> 84:2068. 2. Jones E, <i>et al.</i> 1995. <i>Nature</i> 373:539.
Gene ID	7412

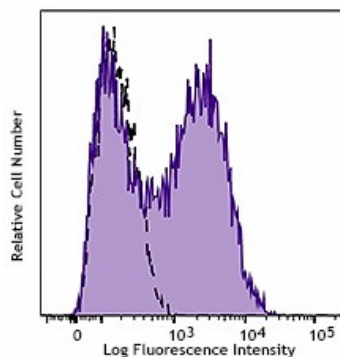
Related Protocols

[Cell Surface Flow Cytometry Staining Protocol](#)

Other Formats

APC anti-human CD106, Biotin anti-human CD106, PE anti-human CD106, PE/Cyanine5 anti-human CD106, Purified anti-human CD106, TotalSeq™-A0245 anti-human CD106, PE/Cyanine7 anti-human CD106, Brilliant Violet 421™ anti-human CD106, TotalSeq™-C0245 anti-human CD106

Product Data



TNF- α stimulated HUVEC cells stained with CD106 (clone STA) Brilliant Violet 421™ (filled histogram) or mouse IgG1, κ Brilliant Violet 421™ isotype control (open histogram).

For research use only. Not for diagnostic use. Not for resale. BioLegend will not be held responsible for patent infringement or other violations that may occur with the use of our products.

*These products may be covered by one or more Limited Use Label Licenses (see the BioLegend Catalog or our website, www.biolegend.com/ordering#license).

BioLegend products may not be transferred to third parties, resold, modified for resale, or used to manufacture commercial products, reverse engineer functionally similar materials, or to provide a service to third parties without written approval of BioLegend. By use of these products you accept the terms and conditions of all applicable Limited Use Label Licenses. Unless otherwise indicated, these products are for research use only and are not intended for human or animal diagnostic, therapeutic or commercial use.

BioLegend Inc., 8999 BioLegend Way, San Diego, CA 92121 www.biolegend.com
Toll-Free Phone: 1-877-Bio-Legend (246-5343) Phone: (858) 768-5800 Fax: (877) 455-9587