Technical Data Sheet

Purified Mouse Anti-Human CD49d

Product Information

Material Number:	556634
Alternate Name:	Integrin α4 chain; Integrin alpha 4; ITGA4; IA4; alpha 4 subunit of VLA-4
Size:	0.1 mg
Concentration:	0.5 mg/ml
Clone:	9F10
Isotype:	Mouse IgG1, ĸ
Reactivity:	QC Testing: Human
	Tested in Development: Rhesus, Cynomolgus, Baboon, Dog, Cow, Sheep, Cat,
	Horse
Workshop:	V S215
Storage Buffer:	Aqueous buffered solution containing ≤0.09% sodium azide.

Description

The 9F10 monoclonal antibody specifically reacts with the integrin α 4 chain, that is expressed as a heterodimer with either of two β integrin subunits, β 1 (CD29) or β 7. The α 4 β 1 integrin (VLA-4) is expressed on lymphocytes, monocytes, thymocytes, NK cells, and several B- and T-cell lines, and mediates binding to VCAM-1 (CD106) and the CS-1 region of fibronectin. The α 4 β 7 integrin has a similar tissue distribution, except it is found on only a small subpopulation of thymocytes. Integrin α 4 β 7 also binds fibronectin and VCAM-1, and has been shown in the mouse to preferentially bind the mucosal vascular addressin molecule, MAdCAM-1. This antibody is useful for studies of the expression by and function of cells that express α 4 chain-containing integrins. This clone cross-reacts with a subset of peripheral blood lymphocytes, monocytes, and some granulocytes of baboon and both rhesus and cynomolgus macaque monkeys. The distribution on leukocytes is similar to that observed with human peripheral blood leukocytes.

This clone cross-reacts with a subset of peripheral blood lymphocytes, monocytes, and some granulocytes of baboon and both rhesus and cynomolgus macaque monkeys. The distribution on leukocytes is similar to that observed with human peripheral blood leukocytes.



Profile of anti-CD49d reactivity on peripheral blood lymphocytes of Rhesus macaque (macaca mulatta) analyzed by flow cytometry.

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
1 10 11	ey connect y

Routinely Tested

BD Biosciences

bdbiosciences.com

 United States
 Canada
 Europe
 Japan
 Asia Pacific
 Latin America/Caribbean

 877.232.8995
 800.268.5430
 32.2.400.98.95
 9120.8555.90
 65.6861.0633
 55.11.5185.9995

 For country contact information, visit bdbiosci=ces.com/contact
 Conditions: The information disclosed herein is not to be construed as a recommendation to use the above product in violation of any patents. BD Biosciences will not be held responsible for patent infringement or other violations that may occur with the use of our products. Purchase does not include or carry any right to resell or transfer this product either as a stand-alone product on a a component of another product. Any use of this product other than the permitted use without the express written authorization of Becton, Dickinson and Company is stictly prohibited.

 For Research Use ONI, Not for use in diagnostic or therapeutic procedures. Not for resale.
 Unless otherwise noted, BD, BD Logo and all other trademarks are property of Becton, Dickinson and Company. © 2014 BD





Suggested Companion Products

Catalog Number	Name	Size	Clone	
556648	Purified Mouse IgG1 κ Isotype Control	0.1 mg	MOPC-21	
554656	Stain Buffer (FBS)	500 mL	(none)	
554657	Stain Buffer (BSA)	500 mL	(none)	
555816	Cell Viability Solution	100 Tests	(none)	
555988	FITC Goat Anti-Mouse IgG/IgM	0.5 mg	Polyclonal	

Product Notices

Since applications vary, each investigator should titrate the reagent to obtain optimal results. 1.

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.

- 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.

References

Berlin C, Berg EL, Briskin MJ, et al. Alpha 4 beta 7 integrin mediates lymphocyte binding to the mucosal vascular addressin MAdCAM-1. Cell. 1993; 74(1):185-195. (Biology)

Hemler ME. VLA proteins in the integrin family: structures, functions, and their role on leukocytes. Annu Rev Immunol. 1990; 8:365-400. (Biology)

Hemler ME, Huang C, Takada Y, Schwarz L, Strominger JL, Clabby ML. Characterization of the cell surface heterodimer VLA-4 and related peptides. J Biol Chem. 1987; 262(24):11478-11485. (Biology)

Hemler ME, Kassner P, Bodorova J. CD49d cluster report. In: Schlossman SF, Boumsell L, Gilks W, et al, ed. Leukocyte Typing V: White Cell Differentiation Antigens. Oxford: Oxford University Press; 1995:1617-1618. (Clone-specific: Flow cytometry)

Knapp W, Dörken B, Gilks WR, et al, ed. Leucocyte Typing IV. New York, NY: Oxford University Press; 1989:1-1182. (Biology)

Parker CM, Cepek KL, Russell GJ, et al. A family of beta 7 integrins on human mucosal lymphocytes. Proc Natl Acad Sci U S A. 1992; 89(5):1924-1928. (Biology) Schlossman SF, Boumsell L, Gilks W, et al, ed. Leukocyte Typing V: White Cell Differentiation Antigens. Oxford: Oxford University Press; 1995. (Biology) Sopper S, Stahl-Hennig C, Demuth M, Johnston IC, Dorries R, ter Meulen V. Lymphocyte subsets and expression of differentiation markers in blood and lymphoid organs of rhesus monkeys. Cytometry. 1997; 29(4):351-362. (Biology)

BD Biosciences

bdbiosciences.com United States

 Canada
 Europe
 Japan

 800.268.5430
 32.2.400.98.95
 0120.8555.90
 Asia Pacific 877.232.8995 65.6861.0633 For country contact information, visit bdbiosciences.com/contact

Conditions: The information disclosed herein is not to be construed as a recommendation to use the above product in violation of any patents. BD Biosciences will not be held responsible for patent infringement or other violations that may occur with the use of our products. Purchase does not include or carry any right to resell or transfer this product either as a stand-alone product or as a component of another product. Any use of this product other than the permitted use without the express written authorization of Becton, Dickinson and Company is stictly prohibited. For Research Use Only. Not for use in diagnostic or therapeutic procedures. Not for resale. Unless otherwise noted, BD, BD Logo and all other trademarks are property of Becton, Dickinson and Company. © 2014 BD

Latin America/Caribbean

55.11.5185.999

