

## Technical Data Sheet

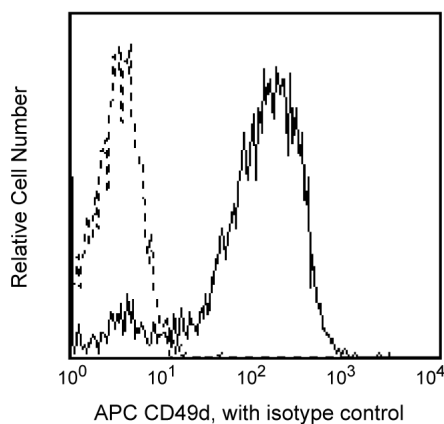
**APC- Mouse Anti-Human CD49d****Product Information**

<b>Material Number:</b>	<b>559881</b>
<b>Alternate Name:</b>	Integrin $\alpha 4$ chain
<b>Size:</b>	100 tests
<b>Vol. per Test:</b>	20 $\mu$ l
<b>Clone:</b>	9F10
<b>Isotype:</b>	Mouse IgG1 $\kappa$
<b>Reactivity:</b>	QC Testing: Human Tested in Development: Baboon, Rhesus, Cynomolgus, Sheep, Horse, Bovine, Dog, Cat.
<b>Workshop:</b>	V S215
<b>Storage Buffer:</b>	Aqueous buffered solution containing BSA and $\leq 0.09\%$ sodium azide.

**Description**

Reacts with the integrin  $\alpha 4$  chain, which is expressed as a heterodimer with either of two  $\beta$  subunits,  $\beta 1$  (CD29) or  $\beta 7$ . The  $\alpha 4\beta 1$  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  $\alpha 4\beta 7$  integrin has a similar tissue distribution, except it is found on only a small subpopulation of thymocytes. Integrin  $\alpha 4\beta 7$  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 and function of  $\alpha 4$  chain-containing integrins.

This antibody is routinely tested by flow cytometric analysis. Other applications were tested at BD Biosciences Pharmingen during antibody development only or reported in the literature.



*Profile of peripheral blood lymphocytes analyzed by flow cytometry.*

**Preparation and Storage**

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

The antibody was conjugated to APC under optimum conditions, and unconjugated antibody and free APC were removed by gel filtration chromatography.

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

**Application Notes****Application**

Flow cytometry

Routinely Tested

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## Suggested Companion Products

<u>Catalog Number</u>	<u>Name</u>	<u>Size</u>	<u>Clone</u>
555751	APC-Mouse IgG1 $\kappa$ Isotype Control	100 tests	MOPC-21

## Product Notices

1. This reagent has been pre-diluted for use at the recommended Volume per Test. We typically use 1 X 10<sup>6</sup> cells in a 100- $\mu$ l experimental sample (a test).
2. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
3. Please refer to [www.bdbiosciences.com/pharmingen/protocols](http://www.bdbiosciences.com/pharmingen/protocols) for technical protocols.
4. For fluorochrome spectra and suitable instrument settings, please refer to our Fluorochrome Web Page at [www.bdbiosciences.com/pharmingen/colors](http://www.bdbiosciences.com/pharmingen/colors).
5. 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.
6. Source of all serum proteins is from USDA inspected abattoirs located in the United States.

## References

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- 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)
- 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)