

Technical Data Sheet

BV510 Mouse Anti-Human CD29

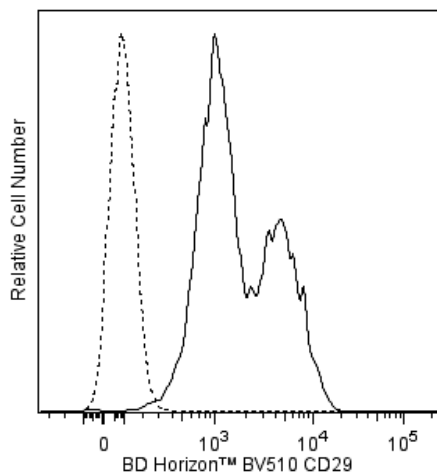
Product Information

Material Number:	563514
Alternate Name:	ITGB1; Integrin beta-1; Integrin β 1; FNRRB; GPIIA; ITB1; MDF2; MSK12; VLA-4 β
Size:	25 tests
Vol. per Test:	5 μ l
Clone:	MAR4
Isotype:	Mouse IgG1, κ
Reactivity:	QC Testing: Human Tested in Development: Rhesus, Cynomolgus, Baboon
Workshop:	VI A093
Storage Buffer:	Aqueous buffered solution containing BSA and $\leq 0.09\%$ sodium azide.

Description

The MAR4 monoclonal antibody specifically binds to CD29. CD29 is a 130 kDa integrin β 1 subunit that is expressed as a heterodimeric complex with one of six distinct α subunits, comprising the very late activation antigen (VLA) subfamily of adhesion receptors. The β 1 subunit has a broad tissue distribution; it is expressed on lymphocytes, monocytes and weakly on granulocytes, but not on erythrocytes. These receptors are involved in a variety of cell-cell and cell-matrix interactions.

The antibody was conjugated to BD Horizon™ BV510 which is part of the BD Horizon™ Brilliant Violet™ family of dyes. With an Ex Max of 405-nm and Em Max at 510-nm, BD Horizon™ BV510 can be excited by the violet laser and detected in the BD Horizon™ V500 (525/50-nm) filter set. BD Horizon™ BV510 conjugates are useful for the detection of dim markers off the violet laser.



Flow cytometric analysis of CD29 expression on human peripheral blood lymphocytes. Whole blood was stained with BD Horizon™ BV510 Mouse Anti-Human CD29 antibody (Cat. No. 563513/563514; solid line histogram) or with a BD Horizon™ BV510 Mouse IgG1, κ Isotype Control (Cat. No. 562946; dashed line histogram). Erythrocytes were lysed with BD PharmLyse™ Lysing Buffer (Cat. No. 555899). The fluorescence histograms were derived from gated events with the forward and side light-scatter characteristics of viable lymphocytes. Flow cytometric analysis 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 monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

The antibody was conjugated with BD Horizon™ BV510 under optimum conditions, and unconjugated antibody and free BD Horizon™ BV510 were removed.

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)
562946	BV510 Mouse IgG1, κ Isotype Control	50 μ g	X40
563513	BV510 Mouse Anti-Human CD29	100 tests	MAR4
555899	Lysing Buffer	100 ml	(none)

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Product Notices

1. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
2. An isotype control should be used at the same concentration as the antibody of interest.
3. Please refer to www.bdbiosciences.com/pharming/en/protocols for technical protocols.
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 Multicolor Flow Cytometry web page at www.bdbiosciences.com/colors.
6. Brilliant Violet™ 510 is a trademark of Sirigen.
7. This reagent has been pre-diluted for use at the recommended Volume per Test. We typically use 1×10^6 cells in a 100- μ l experimental sample (a test).
8. Species testing during development may have been performed with a different format of the same clone. Selected applications have been tested for cross-reactivity.

References

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