

Technical Data Sheet

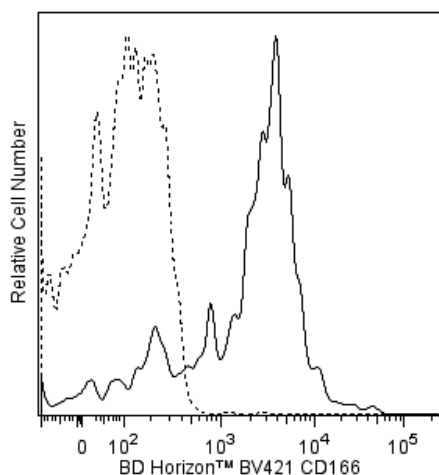
BV421 Mouse Anti-Human CD166**Product Information**

Material Number:	562936
Alternate Name:	ALCAM; Activated leucocyte cell adhesion molecule; MEMD
Size:	50 Tests
Vol. per Test:	5 µl
Clone:	3A6
Isotype:	Mouse IgG1, κ
Reactivity:	QC Testing: Human
Workshop:	VI A109
Storage Buffer:	Aqueous buffered solution containing BSA and ≤0.09% sodium azide.

Description

The 3A6 monoclonal antibody specifically binds to the activated leukocyte cell adhesion molecule (ALCAM), a 100-105 kDa transmembrane glycoprotein, also known as the CD6 ligand, CD166. It is composed of an immunoglobulin-like extracellular domain, a transmembrane region and a short cytoplasmic tail. ALCAM belongs to the Ig superfamily of proteins and is expressed on neurons, activated T cells, activated monocytes, epithelial cells and fibroblasts. CD166 plays an important role in mediating adhesion interactions between thymic epithelial cells and CD6+ cells during intrathymic T-cell development.

The antibody was conjugated to BD Horizon BV421 which is part of the BD Horizon Brilliant™ Violet family of dyes. With an Ex Max of 407-nm and Em Max at 421-nm, BD Horizon BV421 can be excited by the violet laser and detected in the standard Pacific Blue™ filter set (eg, 450/50-nm filter). BD Horizon BV421 conjugates are very bright, often exhibiting a 10 fold improvement in brightness compared to Pacific Blue conjugates.



Flow cytometric analysis of CD166 expression on human peripheral blood monocytes. Whole blood was stained with BD Horizon™ BV421 Mouse Anti-Human CD166 antibody (Cat. No. 562936; solid line histogram) or with a BD Horizon™ BV421 Mouse IgG1, κ Isotype Control (Cat. No. 562438; dashed line histogram). Erythrocytes were lysed with BD Pharm Lyse™ Lysing Buffer (Cat. No. 555899). The fluorescence histograms were derived from gated events with the forward and side light-scatter characteristics of viable monocytes. Flow cytometry 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™ BV421 under optimum conditions, and unconjugated antibody and free BD Horizon™ BV421 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)
562438	BV421 Mouse IgG1, κ Isotype Control	50 µg	X40
555899	Lysing Buffer	100 mL	(none)

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Product Notices

1. 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).
2. An isotype control should be used at the same concentration as the antibody of interest.
3. 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.
4. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
5. Pacific Blue™ is a trademark of Molecular Probes, Inc., Eugene, OR.
6. For fluorochrome spectra and suitable instrument settings, please refer to our Multicolor Flow Cytometry web page at www.bdbiosciences.com/colors.
7. Please refer to www.bdbiosciences.com/pharming/protocols for technical protocols.

References

Aruffo A, Bowen MA, Patel DD, et al. CD6-ligand interactions: a paradigm for SRCR domain function?. *Immunol Today*. 1997; 18(10):498-504. (Biology)

Bowen MA, Patel DD, Li X, et al. Cloning, mapping, and characterization of activated leukocyte-cell adhesion molecule (ALCAM), a CD6 ligand. *J Exp Med*. 1995; 181(6):2213-2220. (Biology)

Kishimoto T, von dem Borne AEG, Goyert SM, et al., ed. *Leucocyte Typing VI: White Cell Differentiation Antigens*. London: Garland Publishing; 1997. (Clone-specific)

Patel DD, Wee SF, Whichard LP, et al. Identification and characterization of a 100-kD ligand for CD6 on human thymic epithelial cells. *J Exp Med*. 1995; 181(4):1563-1568. (Biology)

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