Technical Data Sheet

BV421 Mouse Anti-Human CD56

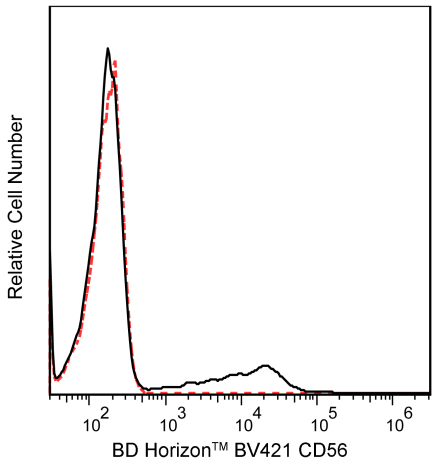
Product Information

Material Number:	**562751**
Alternate Name:	NCAM1; NCAM-1; NCAM; Leu-19; Neural cell adhesion molecule 1; NKH1; MSK39
Size:	100 tests
Vol. per Test:	5 µl
Clone:	NCAM16.2
Immunogen:	Immunoaffinity-enriched adult human brain NCAM
Isotype:	Mouse (BALB/c) IgG2b, κ
Reactivity:	QC Testing: Human
Workshop:	V NK60
Storage Buffer:	Aqueous buffered solution containing BSA and ≤0.09% sodium azide.

Description

The NCAM16.2 monoclonal antibody specifically binds to human CD56. It recognizes an extracellular immunoglobulin-like domain common to 120, 140, and 180 kDa forms of CD56, also known as the neural cell adhesion molecule (NCAM), NKH1 or MSK39. The CD56 antigen is expressed on approximately 10% to 25% of peripheral blood lymphocytes. It is present on essentially all resting and activated CD16+ natural killer (NK) lymphocytes and approximately 5% of CD3+ peripheral blood lymphocytes. CD3+ CD56+ T lymphocytes comprise a unique subset of cytotoxic T lymphocytes that mediates non-major histocompatibility complex (MHC)-restricted cytotoxicity. CD56 antigen density on NK lymphocytes increases upon cellular activation. The CD56 antigen is involved in neuronal homotypic cell adhesion and cell differentiation during embryogenesis. CD16+ CD56+ NK cells demonstrate reciprocal transfer of an activation state with dendritic cells.

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 CD56 expression on human peripheral blood lymphocytes. *Human whole blood was stained with the BD Horizon™ BV421 Mouse Anti-Human CD56 antibody (Cat. No. 562751/ 562752; solid line histogram) or with BD Horizon™ BV421 Mouse IgG2b Isotype Control (Cat. No. 562748; dashed line histogram). The erythrocytes were lysed with BD Pharm Lyse™ Lysing Buffer (Cat. No. 555899). The fluorescence histograms were derived from events with the forward and side light-scatter characteristics of viable lymphocytes. Flow cytometry was performed using a BD FACSCanto™ 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
562748	BV421 Mouse IgG2b, κ Isotype Control	50 µg	27-35
554656	Stain Buffer (FBS)	500 ml	(none)
555899	Lysing Buffer	100 ml	(none)
562752	BV421 Mouse Anti-Human CD56	25 tests	NCAM16.2

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-µl experimental sample (a test).
2. An isotype control should be used at the same concentration as the antibody of interest.
3. Brilliant Violet™ 421 is a trademark of Sirigen.
4. Pacific Blue™ is a trademark of Molecular Probes, Inc., Eugene, OR.
5. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
6. 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.
7. For fluorochrome spectra and suitable instrument settings, please refer to our Multicolor Flow Cytometry web page at www.bdbiosciences.com/colors.
8. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.

References

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