Technical Data Sheet

BV711 Mouse Anti-Human CD56

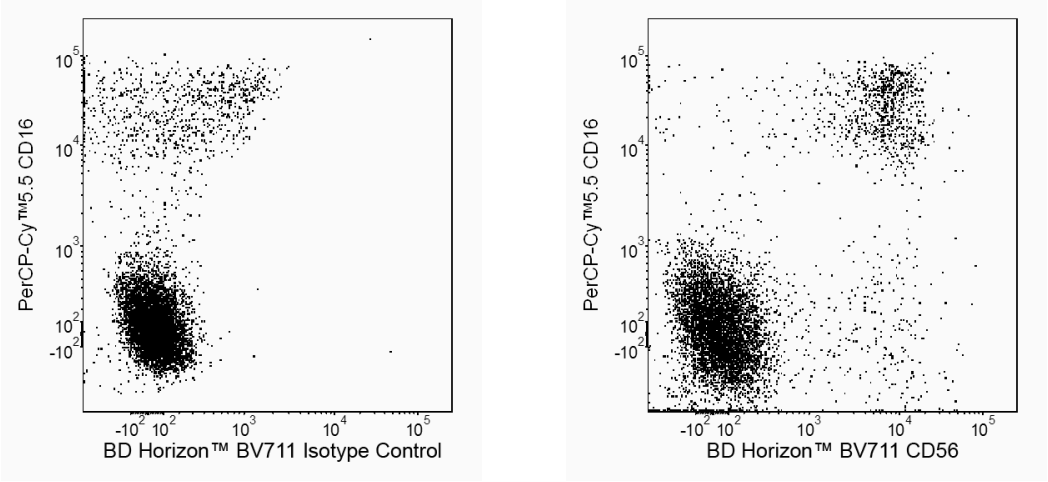
Product Information

Material Number:	**563169**
Alternate Name:	NCAM1; NCAM-1; NCAM; Leu-19; Neural cell adhesion molecule 1; NKH1; MSK39
Size:	50 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™ BV711 which is part of the BD Horizon™ Brilliant Violet™ family of dyes. This dye is a tandem fluorochrome of BD Horizon™ BV421 with an Ex Max of 405-nm and an acceptor dye with an Em Max at 711-nm. BD Horizon™ BV711 can be excited by the violet laser and detected in a filter used to detect Cy™5.5 / Alexa Fluor® 700-like dyes (eg, 712/20-nm filter). Due to the excitation and emission characteristics of the acceptor dye, there may be moderate spillover into the Alexa Fluor® 700 and PerCP-Cy™5.5 detectors. However, the spillover can be corrected through compensation as with any other dye combination.



Two-color flow cytometric analysis of CD56 expression on human peripheral blood lymphocytes. *Human whole blood was stained with PerCP-Cy™5.5 Mouse Anti-Human CD16 antibody (Cat. No. 560717) and either BD Horizon™ BV711 Mouse IgG2b, κ Isotype Control (Cat. No. 563125; Left Panel) or BD Horizon™ BV711 Mouse Anti-Human CD56 antibody (Cat. No. 563169; Right Panel). The erythrocytes were lysed with BD Pharm Lyse™ Lysing Buffer (Cat. No. 555899). The two-color flow cytometric dot plots show the correlated expression patterns of CD56 (or Ig Isotype control staining) versus CD16 for gated events with the forward and side light-scatter characteristics of intact peripheral blood 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™ BV711 under optimum conditions, and unconjugated antibody and free BD Horizon™ BV711 were removed.

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Application Notes

Application

Flow cytometry	Routinely Tested

Suggested Companion Products

Catalog Number	Name	Size	Clone
554656	Stain Buffer (FBS)	500 ml	(none)
563125	BV711 Mouse IgG2b, κ Isotype Control	50 µg	27-35
555899	Lysing Buffer	100 ml	(none)
560717	PerCP-Cy™5.5 Mouse Anti-Human CD16	50 tests	3G8

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. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
3. An isotype control should be used at the same concentration as the antibody of interest.
4. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.
5. Alexa Fluor® is a registered trademark of Molecular Probes, Inc., Eugene, OR.
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. Cy is a trademark of Amersham Biosciences Limited.
9. Brilliant Violet™ 711 is a trademark of Sirigen.

References

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