Technical Data Sheet

BV711 Mouse Anti-Human CD158b1, b2, j

Product Information

Material Number:	745442
Size:	50 µg
Clone:	DX27
Alternative Name:	NKAT2/NKAT5/NKAT6; KIR2DL3/KIR2DS2/KIR2DL2
Reactivity:	Human (Tested in Development)
Isotype:	Mouse IgG2a, κ
Application:	Flow cytometry (Qualified)
Concentration:	0.2 mg/ml
Entrez Gene ID:	3804
Storage Buffer:	Aqueous buffered solution containing ≤0.09% sodium azide.
Regulatory Status:	RUO

Description

The DX27 monoclonal antibody specifically recognizes CD158b1 (KIRDL2/NKAT6), CD158b2 (KIRDL3/NKAT2), and CD158j (KIR2DS2/NKAT5) which are members of the Killer immunoglobulin-like receptor (KIR) family within the Ig superfamily. CD158b1 and CD158j contain two (KIR2D) Ig-like extacellular domains whereas CD158b2 contains three (KIR3D) Ig-like domains. These polymorphic CD158 molecules are expressed on natural killer (NK) cells and a subset of T cells and can recognize MHC class I molecules on target cells. They serve as either inhibitory receptors (CD158b1, CD158b2) that express immunoreceptor tyrosine-based inhibitory motifs (ITIMs) in their cytoplasmic domains or activating receptors (CD158j) that lack ITIMs.

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-Cy5.5 detectors. However, the spillover can be corrected through compensation as with any other dye combination.

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 to the dye under optimum conditions that minimize unconjugated dye and antibody.

Recommended Assay Procedure

For optimal and reproducible results, BD Horizon Brilliant Stain Buffer should be used anytime two or more BD Horizon Brilliant dyes (including BD OptiBuild Brilliant reagents) are used in the same experiment. Fluorescent dye interactions may cause staining artifacts which may affect data interpretation. The BD Horizon Brilliant Stain Buffer was designed to minimize these interactions. More information can be found in the Technical Data Sheet of the BD Horizon Brilliant Stain Buffer (Cat. No. 563794).

Suggested Companion Products

Catalog Number	Name	Size	Clone
349202	Lysing Solution 10X Concentrate	100 NA	
564219	Human BD Fc Block™	50 mg	
563345	BV711 Mouse IgG2a, κ Isotype Control	50 µg	G155-178
554656	Stain Buffer (FBS)	500 mL	
554657	Stain Buffer (BSA)	500 mL	
563794	Brilliant Stain Buffer	100 Tests	
555899	Lysing Buffer	100 mL	
564220	Human BD Fc Block™	0.25 mg	

566349	Brilliant Stain Buffer	1000 Tests
566385	Brilliant Stain Buffer Plus	1000 Tests

Product Notices

1. The production process underwent stringent testing and validation to assure that it generates a high-quality conjugate with consistent performance and specific binding activity. However, verification testing has not been performed on all conjugate lots.
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. For fluorochrome spectra and suitable instrument settings, please refer to our Multicolor Flow Cytometry web page at www.bdbiosciences.com/colors.
5. BD Horizon Brilliant Stain Buffer is covered by one or more of the following US patents: 8,110,673; 8,158,444; 8,575,303; 8,354,239.
6. BD Horizon Brilliant Violet 711 is covered by one or more of the following US patents: 8,110,673; 8,158,444; 8,227,187; 8,455,613; 8,575,303; 8,354,239.
7. Cy is a trademark of GE Healthcare.
8. Please refer to http://regdocs.bd.com to access safety data sheets (SDS).
9. Please refer to www.bdbiosciences.com/us/s/resources for technical protocols.

References

Bakker AB, Phillips JH, Figdor CG, Lanier LL. Killer cell inhibitory receptors for MHC class I molecules regulate lysis of melanoma cells mediated by NK cells, gamma delta T cells, and antigen-specific CTL. J Immunol. 1998; 160(11):5239-5245. (Biology: Flow cytometry).
Lanier LL, Corliss B, Phillips JH. Arousal and inhibition of human NK cells. Immunol Rev. 1997; 155:145-154. (Immunogen: Flow cytometry).

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United States	Canada	Europe	Japan	Asia Pacific	Latin America/Caribbean
877.232.8995	888.268.5430	32.53.720.550	0120.8555.90	65.6861.0633	0800.771.7157

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