

Technical Data Sheet

BV421 Mouse Anti-Human CD158b

Product Information

Material Number:	743451
Size:	50 µg
Clone:	CH-L
Alternative Name:	CD158b1/KIR2DL2/NKAT-6; CD158b2/KIR2DL3/NKAT-2; CD158j/ KIR2DS2/NKAT-5
Reactivity:	Human (Tested in Development)
Isotype:	Mouse BALB/c IgG2b, κ
Immunogen:	Human NK Cells
Application:	Flow cytometry (Qualified)
Concentration:	0.2 mg/ml
Storage Buffer:	Aqueous buffered solution containing ≤0.09% sodium azide.
Regulatory Status:	RUO

Description

The CH-L monoclonal antibody specifically binds to CD158b proteins. These proteins are 50-58 kDa type I glycoproteins that belong to the Killer cell immunoglobulin-like receptor (KIR) family: (KIR2DL2/L3/S2). They are also known as CD158b1 (KIR2DL2; NKAT-6; p58.2), CD158b2 (KIR2DL3; NKAT-2; p58.2), or CD158j (KIR2DS2; NKAT-5; p50.2). The CD158b molecules are composed of two extracellular Ig-like domains, and a transmembrane region. CD158b1 and CD158b2 also possess long (84 or 76 amino acids, respectively) cytoplasmic tails with two immunoreceptor tyrosine-based inhibition motifs (ITIM) whereas CD158j has a short (39 amino acid) cytoplasmic tail that lacks the ITIM motif. CD158b molecules are expressed on NK cells and subsets of TCR αβ+ cells or TCR γδ+ cells. Ligand- or CH-L antibody-bound CD158b1 or CD158b2 can reportedly inhibit cytolytic NK and T cell responses to various stimuli including certain target cells expressing MHC class I ligands encoded by HLA-C alleles (Cw 1, 3, 7 and 8). CD158j reportedly can enhance some cellular cytolytic responses.

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.

Preparation and Storage Section

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 optimal 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
554656	Stain Buffer (FBS) RUO	500 mL	
554657	Stain Buffer (BSA) RUO	500 mL	
563794	Brilliant Stain Buffer RUO	100 Tests	
555899	Lysing Buffer RUO	100 mL	
349202	Lysing Solution 10X Concentrate IVD	100 NA	
564219	Human BD Fc Block™ RUO	50 mg	
562748	BV421 Mouse IgG2b, κ Isotype Control RUO	50 µg	

Product Notices

1. This antibody was developed for use in flow cytometry.
2. 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.
3. Researchers should determine the optimal concentration of this reagent for their individual applications.
4. An isotype control should be used at the same concentration as the antibody of interest.
5. 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.
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/us/s/resources for technical protocols.
8. 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.
9. BD Horizon Brilliant Violet 421 is covered by one or more of the following US patents: 8,158,444; 8,362,193; 8,575,303; 8,354,239.
10. Pacific Blue™ is a trademark of Molecular Probes, Inc., Eugene, OR.

References

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