

Technical Data Sheet

BV711 Mouse Anti-Human CD159c (NKG2C)

Product Information

Material Number:	748164
Size:	50 µg
Clone:	134591
Alternative Name:	CD159c; KLRC2; killer cell lectin-like receptor subfamily C, member 2; NK cell receptor C; NKG2-C; NKG2C
Reactivity:	Human (Tested in Development)
Isotype:	Mouse IgG1, κ
Immunogen:	Human NKG2C/CD159c and CD94 Transfected Cell Line
Application:	Flow cytometry (Qualified)
Concentration:	0.2 mg/ml
Storage Buffer:	Aqueous buffered solution containing ≤0.09% sodium azide.
Regulatory Status:	RUO

Description

The 134591 monoclonal antibody specifically recognizes CD159 antigen-like family member C (CD159c) which is also known as NKG2-C type II integral membrane protein or NKG2-C-activating NK receptor (NKG2C), or NK cell receptor C. CD159c (NKG2C) is a type II transmembrane glycoprotein that is encoded by KLRC2 (killer cell lectin like receptor C2) which belongs to the killer cell lectin-like receptor (KLR) family. CD159c (NKG2C) contains a C-type lectin domain in its extracellular region and is expressed by NK cells and some T cells. CD159c (NKG2C) can form a disulfide-bonded heterodimer with CD94 that non-covalently associates with DAP12 homodimers to form a functional signaling receptor complex. CD159c (NKG2C) binds to MHC class I HLA-E molecules on target cells to regulate NK cell activation.

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 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 BV711 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
349202	Lysing Solution 10X Concentrate IVD	100 NA	
564219	Human BD Fc Block™ RUO	50 mg	
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	
563044	BV711 Mouse IgG1, 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 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.
10. Cy is a trademark of GE Healthcare.
11. Alexa Fluor® is a registered trademark of Life Technologies Corporation.

References

- Angelini DF, Zambello R, Galandrini R, et al. NKG2A inhibits NKG2C effector functions of $\gamma\delta$ T cells: implications in health and disease.. *J Leukoc Biol.* 2011; 89(1):75-84.
- Dulphy N, Haas P, Busson M, et al. An unusual CD56(bright) CD16(low) NK cell subset dominates the early posttransplant period following HLA-matched hematopoietic stem cell transplantation.. *J Immunol.* 2008; 181(3):2227-37.
- Gumá M, Busch LK, Salazar-Fontana LI, et al. The CD94/NKG2C killer lectin-like receptor constitutes an alternative activation pathway for a subset of CD8+ T cells.. *Eur J Immunol.* 2005; 35(7):2071-80.
- Houchins JP, Yabe T, McSherry C, Bach FH. DNA sequence analysis of NKG2, a family of related cDNA clones encoding type II integral membrane proteins on human natural killer cells.. *J Exp Med.* 1991; 173(4):1017-20.
- Lanier LL, Corliss B, Wu J, Phillips JH. Association of DAP12 with activating CD94/NKG2C NK cell receptors.. *Immunity.* 1998; 8(6):693-701.
- Picardi A, Mengarelli A, Marino M, et al. Up-regulation of activating and inhibitory NKG2 receptors in allogeneic and autologous hematopoietic stem cell grafts.. *J Exp Clin Cancer Res.* 2015; 34:98.
- Warren HS. The Eighth Human Leucocyte Differentiation Antigen (HLDA8) Workshop: natural killer cell section report.. *Cell Immunol.* 236(1-2):17-20.

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