

Technical Data Sheet

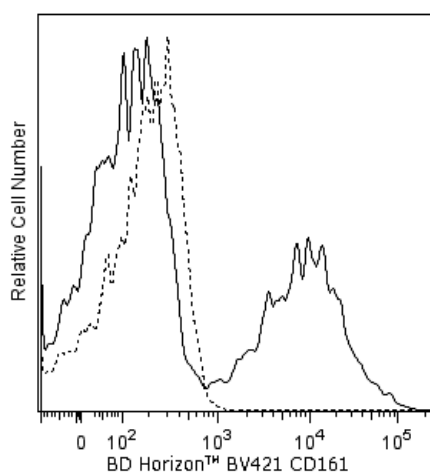
BV421 Mouse Anti-Human CD161**Product Information**

Material Number:	562615
Alternate Name:	KLRB1; CLEC5B; NKR; NKR-P1A; HNKR-P1a
Size:	50 tests
Vol. per Test:	5 µl
Clone:	DX12
Immunogen:	Human NKR-P1A Transfected Mouse Fibroblasts
Isotype:	Mouse (C3H) IgG1, κ
Reactivity:	QC Testing: Human
Workshop:	VI NK12
Storage Buffer:	Aqueous buffered solution containing BSA and ≤0.09% sodium azide.

Description

The DX12 monoclonal antibody specifically binds to human CD161 which is also known as Natural killer cell surface protein P1A (NKR-P1A). CD161 is encoded by the *KLRB1* (Killer cell lectin-like receptor subfamily B member 1) gene. CD161 is a member of the C-type lectin superfamily and is also referred to as C-type lectin domain family 5 member B (CLEC5B). CD161 is a 80 kDa disulfide-linked homodimer, type II membrane glycoprotein. CD161 is expressed mostly on NK cell populations and on subsets of CD4+ and CD8+ αβ T cells, NKT cells and γδ T cells. Reports indicate that CD161 is expressed preferentially on CD45RO+ T cells, however, it can be found on a subset of thymocytes and fetal liver T cells. Its function has not been fully elucidated, but reports indicate that NKR-P1A may serve as a specific receptor for some NK cell targets. The DX12 antibody can reportedly inhibit spontaneous cytotoxicity mediated by certain NK cell clones.

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 CD161 expression on human peripheral blood lymphocytes. Whole blood was stained with either BD Horizon™ BV421 Mouse Anti-Human CD161 antibody (Cat. No. 562615; solid line histogram) or with a BD Horizon™ BV421 Mouse IgG1, κ Isotype Control (Cat. No. 562438; 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™ 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™ 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
562438	BV421 Mouse IgG1, k Isotype Control	50 µg	X40
555899	Lysing Buffer	100 ml	(none)
554656	Stain Buffer (FBS)	500 ml	(none)

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/pharming/en/protocols for technical protocols.
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. Pacific Blue™ is a trademark of Molecular Probes, Inc., Eugene, OR.
8. Brilliant Violet™ 421 is a trademark of Sirigen.

References

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Lanier LL, Chang C, Phillips JH. Human NKR-P1A. A disulfide-linked homodimer of the C-type lectin superfamily expressed by a subset of NK and T lymphocytes. *J Immunol*. 1994; 153(6):2417-2428. (Immunogen: Inhibition)

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