

Technical Data Sheet

BV421 Mouse Anti-Human CD117

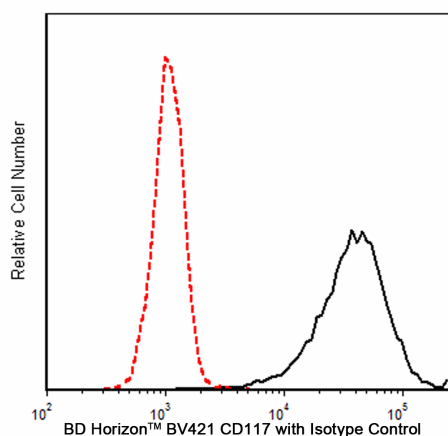
Product Information

Material Number:	562434
Alternate Name:	KIT; c-Kit; SCFR; PBT; Mast/stem cell growth factor receptor
Size:	100 tests
Vol. per Test:	5 µl
Clone:	YB5.B8
Isotype:	Mouse IgG1, κ
Reactivity:	QC Testing: Human
Workshop:	V C009
Storage Buffer:	Aqueous buffered solution containing BSA and ≤0.09% sodium azide.

Description

The YB5.B8 monoclonal antibody specifically binds to CD117. CD117, also known as c-Kit, is a 145 kDa cell-surface glycoprotein with tyrosine kinase activity. CD117 is present on hematopoietic progenitor cell subsets, thymocytes, mast cells, hepatocytes and histiocytes. CD117 serves as a cytokine receptor for steel factor (SLF), also known as stem cell factor (SCF) or mast cell growth factor (MGF). The interaction of c-Kit and SLF is crucial to hematopoiesis, mast cell differentiation, melanogenesis, and germ cell development. The ability of the YB5.B8 antibody to block the binding of c-Kit ligand is still controversial.

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 CD117 expressed on TF-1 cells. Human TF-1 cells (ATCC CRL-2003™) were stained with either the BD Horizon™ BV421 Mouse Anti-Human CD117 antibody (Cat. No. 562434/562435; solid line histogram) or with BD Horizon™ BV421 Mouse IgG1, κ Isotype Control (Cat. No. 562438; dashed line histogram). Flow cytometric fluorescence histograms were derived from gated events with the forward and side light-scatter characteristics of viable cells. Flow cytometry was performed using a BD FACSCanto™ 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
554656	Stain Buffer (FBS)	500 ml	(none)
555899	Lysing Buffer	100 ml	(none)
562438	BV421 Mouse IgG1, κ Isotype Control	50 µg	X40
562435	BV421 Mouse Anti-Human CD117	25 tests	YB5.B8

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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- μ l experimental sample (a test).
2. An isotype control should be used at the same concentration as the antibody of interest.
3. Brilliant Violet™ 421 is a trademark of Sirigen.
4. Pacific Blue™ is a trademark of Molecular Probes, Inc., Eugene, OR.
5. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
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. Please refer to www.bdbiosciences.com/pharming/protocols for technical protocols.

References

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Wypych J, Bennett LG, Schwartz MG, et al. Soluble kit receptor in human serum. *Blood.* 1995; 85(1):66-73. (Biology)

Yarden Y, Kuang WJ, Yang-Feng T, et al. Human proto-oncogene c-kit: a new cell surface receptor tyrosine kinase for an unidentified ligand. *EMBO J.* 1987; 6(11):3341-3351. (Biology)

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