

Technical Data Sheet

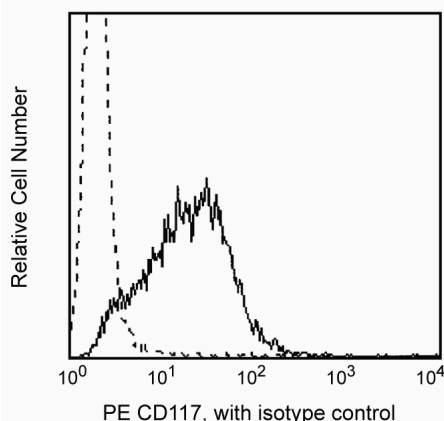
PE Mouse Anti-Human CD117

Product Information

Material Number:	561682
Alternate Name:	KIT ; c-Kit; SCFR; PBT: Mast/stem cell growth factor receptor
Size:	25 µg
Concentration:	0.2 mg/ml
Clone:	YB5.B8
Isotype:	Mouse IgG1, κ
Reactivity:	QC Testing: Human
Workshop:	V C009
Storage Buffer:	Aqueous buffered solution containing ≤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.



Profile of the erythroleukemia cell line, TF-1, analyzed on a FACScan (BDIS, San Jose, CA)

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 R-PE under optimum conditions, and unconjugated antibody and free PE were removed.

Application Notes

Application

Flow cytometry	Routinely Tested
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Suggested Companion Products

Catalog Number	Name	Size	Clone
555749	PE Mouse IgG1, κ Isotype Control	100 tests	MOPC-21
554656	Stain Buffer (FBS)	500 ml	(none)

Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.
3. For fluorochrome spectra and suitable instrument settings, please refer to our Fluorochrome Web Page at www.bdbiosciences.com/colors.
4. 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.

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5. An isotype control should be used at the same concentration as the antibody of interest.

References

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- Lerner NB, Nocka KH, Cole SR, et al. Monoclonal antibody YB5.B8 identifies the human c-kit protein product. *Blood.* 1991; 77(9):1876-1883. (Biology)
- Schlossman S, Boumell L, et al, ed. *Leucocyte Typing V.* New York: Oxford University Press; 1995. (Clone-specific)
- 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)