

## Technical Data Sheet

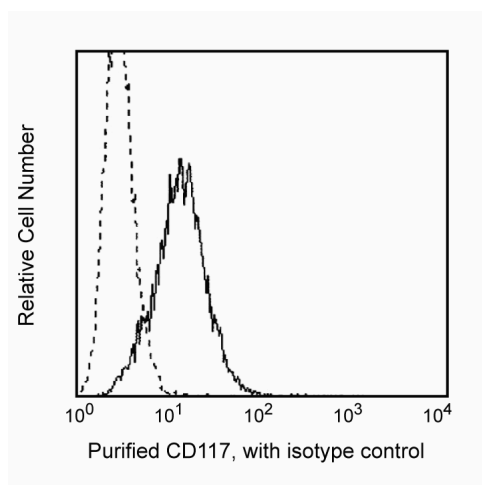
**Purified Mouse Anti-Human CD117****Product Information**

|                         |  |
|-------------------------|--|
| <b>Material Number:</b> | 555713   |
| <b>Alternate Name:</b>  | C-Kit  |
| <b>Size:</b>            | 0.1 mg   |
| <b>Concentration:</b>   | 0.5 mg/ml  |
| <b>Clone:</b>           | YB5.B8   |
| <b>Isotype:</b>         | Mouse IgG1, $\kappa$   |
| <b>Reactivity:</b>      | QC Testing: Human  |
| <b>Workshop:</b>        | V C009   |
| <b>Storage Buffer:</b>  | Aqueous buffered solution containing $\leq 0.09\%$ sodium azide. |

**Description**

Recognizes CD117 (the C-Kit), 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 YB5.B8 antibody to block the binding of c-kit ligand is still controversial.

This antibody is routinely tested by flow cytometric analysis. Other applications were tested at BD Biosciences Pharmingen during antibody development only or reported in the literature.



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

**Preparation and Storage**

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

Store undiluted at 4° C.

**Application Notes****Application**

|                    |                           |
|--------------------|---------------------------|
| Flow cytometry     | Routinely Tested          |
| Immunofluorescence | Tested During Development |

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## Suggested Companion Products

| <u>Catalog Number</u> | <u>Name</u>                                   | <u>Size</u> | <u>Clone</u> |
|-----------------------|---|-------------|--------------|
| 555746                | Purified Mouse IgG1, $\kappa$ Isotype Control | 0.1 mg      | MOPC-21      |
| 555988                | FITC Goat Anti-Mouse IgG/IgM                  | 0.5 mg      | Polyclonal   |

## 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](http://www.bdbiosciences.com/pharmingen/protocols) for technical protocols.
3. 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.

## References

- Schlossman S, Boumell L, et al, ed. *Leucocyte Typing V*. New York: Oxford University Press; 1995.(Clone-specific)
- Ashman LK, Buhring HJ, Aylett GW, Broudy VC, Muller C. Epitope mapping and functional studies with three monoclonal antibodies to the c-kit receptor tyrosine kinase, YB5.B8, 17F11, and SR-1. *J Cell Physiol*. 1994; 158(3):545-554.(Biology)
- 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)
- 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)