SONY

Product Data Sheet

Brilliant Violet 605™ anti-human CD117 (c-kit)

Catalog # / Size: 2166085 / 25 tests
2166090 / 100 tests

Clone: 104D2

Isotype: Mouse IgG1, κ

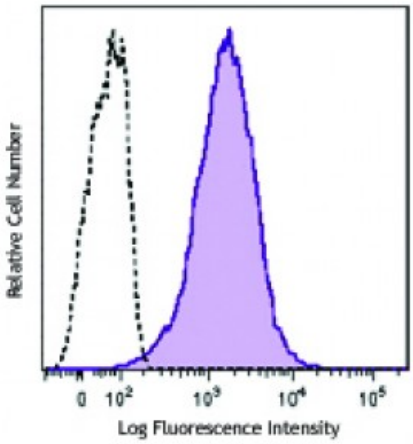
Immunogen: MOLM-1 megakaryocytic cell line

Reactivity: Human

Preparation: The antibody was purified by affinity chromatography and conjugated with Brilliant Violet 605™ under optimal conditions. The solution is free of unconjugated Brilliant Violet 605™ and unconjugated antibody.

Formulation: Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and BSA (origin USA).

Concentration: Lot-specific



Human erythroleukemia cell line (HEL) was stained with CD117 (clone 104D2) Brilliant Violet 605™ (filled histogram) or mouse IgG1, κ Brilliant Violet 605™ isotype control (open histogram).

Applications:

Applications: Flow Cytometry

Recommended Usage: Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis. For flow cytometric staining, the suggested use of this reagent is ≤5 microL per million cells or 5 microL per 100 microL of whole blood. It is recommended that the reagent be titrated for optimal performance for each application.

Brilliant Violet 605™ excites at 405 nm and emits at 603 nm. The bandpass filter 610/20 nm is recommended for detection, although filter optimization may be required depending on other fluorophores used. **Be sure to verify that your cytometer configuration and software setup are appropriate for detecting this channel.** Refer to your instrument manual or manufacturer for support. Brilliant Violet 605™ is a trademark of Sirigen Group Ltd.

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Application Notes: The 104D2 antibody does not block binding of c-Kit ligand. Additional reported applications (for the relevant formats) include: immunoprecipitation1 and immunofluorescence microscopy1.

Application References:
1. Broudy VC, *et al.* 1999. *Blood* 94:1979. (IF, IP)
2. Yoshino N, *et al.* 2000. *Exp. Anim. (Tokyo)* 49:97. (FC)
3. Nagano M, *et al.* 2007. *Blood* 110:151. (FC) PubMed

Description: CD117 is a 145 kD protein tyrosine kinase also known as c-Kit. It is a receptor for

stem cell factor or c-Kit ligand. CD117 is expressed on pluripotent hematopoietic progenitor cells (approximately 1-4% bone marrow cells), mast cells, and acute myeloid leukemia cells (AML). CD117 binding of c-Kit ligand induces phosphorylation of CD117 and stimulates proliferation and survival of primitive hematopoietic stem cells as well as erythroid-committed and granulo-monocytic committed cells.

Antigen References:

1. Giebel LB, *et al.* 1992. *Oncogene* 7:2207.
2. Furitsu T, *et al.* 1993. *J. Clin. Invest.* 92:1736.