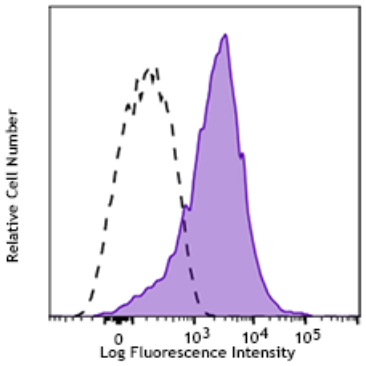
SONY

Product Data Sheet

Spark NIR™ 685 anti-human CD117 (c-kit)

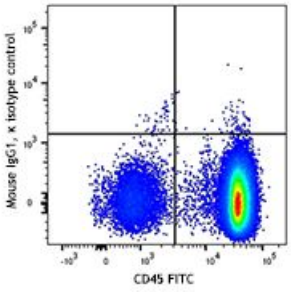
Catalog # / Size:	2166250 / 100 tests 2166245 / 25 tests
Clone:	104D2
Isotype:	Mouse IgG1, κ
Immunogen:	MOLM-1 megakaryocytic cell line
Reactivity:	Human, Non-human primate
Preparation:	The antibody was purified by affinity chromatography and conjugated with Spark NIR™ 685 under optimal conditions.
Formulation:	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and 0.2% (w/v) BSA (origin USA)
Workshop Number:	750 under optimal conditions.
Concentration:	Lot-specific



Human erythroleukemia cell line (HEL) was stained with anti-human CD117 (clone 104D2) Spark NIR™ 685 (filled histogram) or mouse IgG1, κ Spark NIR™ 685 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 µL per million cells in 100 µL staining volume or 5 µL per 100 µL of whole blood. It is recommended that the reagent be titrated for optimal performance for each application. * Spark NIR™ 685 has a maximum excitation of 665 nm and a maximum emission of 685 nm.
Application Notes:	The 104D2 antibody does not block binding of c-Kit ligand. Additional reported applications (for the relevant formats) include: immunoprecipitation[1] and immunofluorescence microscopy[1].



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

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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.