

**Alexa Fluor® 647 anti-human CD117 (c-kit)**

**Catalog # / Size:** 2166180 / 100 tests  
2166175 / 25 tests

**Clone:** 104D2

**Isotype:** Mouse IgG1, κ

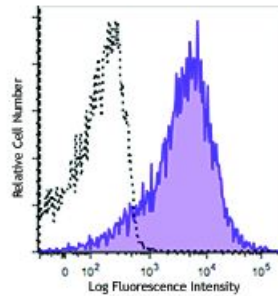
**Immunogen:** MOLM-1 megakaryocytic cell line

**Reactivity:** Human

**Preparation:** The antibody was purified by affinity chromatography and conjugated with Alexa Fluor® 647 under optimal conditions.

**Formulation:** Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and 0.2% (w/v) BSA (origin USA).

**Concentration:** Lot-specific



Human erythroleukemia cell line (HEL) was stained with CD117 (clone 104D2) Alexa Fluor® 647 (filled histogram) or mouse IgG1, κ Alexa Fluor® 647 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.

\* Alexa Fluor® 647 has a maximum emission of 668 nm when it is excited at 633 nm / 635 nm.

**Application Notes:** The 104D2 antibody does not block binding of c-Kit ligand. Additional reported applications (for the relevant formats) include: immunoprecipitation<sup>1</sup> and immunofluorescence microscopy<sup>1</sup>.

**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.