

**Alexa Fluor® 700 anti-mouse CD117 (c-Kit)**

**Catalog # / Size:** 1129230 / 100 µg  
1129225 / 25 µg

**Clone:** 2B8

**Isotype:** Rat IgG2b, κ

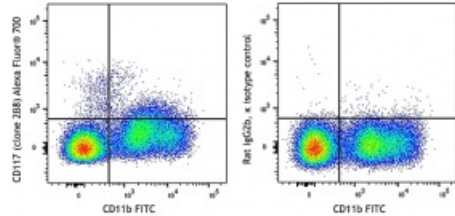
**Immunogen:** Mouse bone marrow mast cells

**Reactivity:** Mouse

**Preparation:** The antibody was purified by affinity chromatography and conjugated with Alexa Fluor® 700 under optimal conditions. The solution is free of unconjugated Alexa Fluor® 700.

**Formulation:** Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide.

**Concentration:** 0.5 mg/ml



C57BL/6 mouse bone marrow cells were stained with CD11b FITC and CD117 (clone 2B8) Alexa Fluor® 700 (left) or rat IgG2b, κ Alexa Fluor® 700 isotype control (right). Data shown was gated on total cell population.

**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 ≤ 0.5 µg per million cells in 100 µl volume. It is recommended that the reagent be titrated for optimal performance for each application.

\* Alexa Fluor® 700 has a maximum emission of 719 nm when it is excited at 633 nm / 635 nm. Prior to using Alexa Fluor® 700 conjugate for flow cytometric analysis, please verify your flow cytometer's capability of exciting and detecting the fluorochrome.

**Application Notes:** Additional reported applications (for the relevant formats) include: immunoprecipitation<sup>1</sup> and immunohistochemistry of acetone fixed frozen sections<sup>2</sup>. The 2B8 antibody does not block c-Kit activity.

**Application References:**

1. Barclay A, *et al.* 1997. The Leukocyte Antigen FactsBook Academic Press.
2. Galli SJ, *et al.* 1994. *Adv. Immunol.* 55:1.
3. Ikuta K, *et al.* 1992. *Annu. Rev. Immunol.* 10:759.
4. Besmer P, *et al.* 1986. *Nature* 320:415.
5. Witte ON. 1990. *Cell* 63:5.

**Description:** CD117 is a 145 kD immunoglobulin superfamily member also known as c-Kit and stem cell factor receptor (SCFR). It is a transmembrane tyrosine-kinase receptor that binds the c-Kit ligand (also known as steel factor, stem cell factor, and mast cell growth factor). CD117 is expressed on hematopoietic stem cells (including multipotent hematopoietic stem cells, progenitors committed to myeloid and/or erythroid lineages, and T and B cell precursors), mast cells, and acute myeloid leukemia (AML) cells. CD117 interaction with its ligand is critical for the development of hematopoietic stem cells.

**Antigen**  
**References:**

1. Barclay A, *et al.* 1997. *The Leukocyte Antigen FactsBook* Academic Press.
2. Galli SJ, *et al.* 1994. *Adv. Immunol.* 55:1.
3. Ikuta K, *et al.* 1992. *Annu. Rev. Immunol.* 10:759.
4. Besmer P, *et al.* 1986. *Nature* 320:415.
5. Witte ON. 1990. *Cell* 63:5.