

**Biotin anti-mouse CD117 (c-Kit)**

**Catalog # / Size:** 1129015 / 50 µg  
1129020 / 500 µg

**Clone:** 2B8

**Isotype:** Rat IgG2b, κ

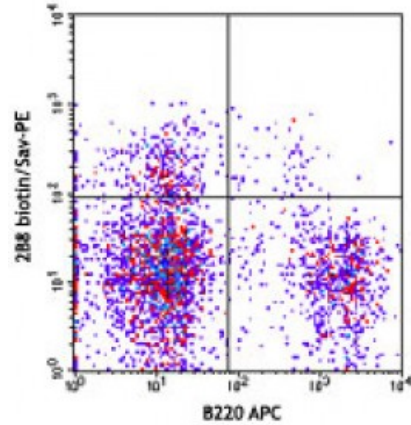
**Immunogen:** Mouse bone marrow mast cells

**Reactivity:** Mouse

**Preparation:** The antibody was purified by affinity chromatography, and conjugated with biotin under optimal conditions. The solution is free of unconjugated biotin.

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

**Concentration:** 0.5



C57BL/6 mouse bone marrow cells were stained with B220 APC and biotinylated CD117 (clone 2B8) or rat IgG2b, κ isotype control, followed by Sav-PE.

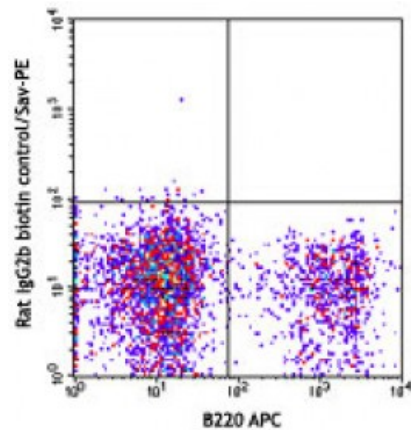
**Applications:**

**Applications:** Flow Cytometry, Immunohistochemistry

**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 ≤ 0.25 microg per 10<sup>6</sup> cells in 100 microL volume. It is recommended that the reagent be titrated for optimal performance for each application.

**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:**
- Ikuta K, *et al.* 1992. *P. Natl. Acad. Sci. USA* 89:1502. (FC)
  - Podd BS, *et al.* 2006. *J. Immunol.* 176:6532. [PubMed](#) (IHC)
  - Bachelet I, *et al.* 2008. *J. Immunol.* 180:6064. [PubMed](#) (FC)
  - Charles N, *et al.* 2010. *Nat. Med.* 16:701. [PubMed](#) (FC)
  - Rai S, *et al.* 2014. *PLoS One.* 9:109441. [PubMed](#)



**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,