SONY

Product Data Sheet

PE/Dazzle™ 594 anti-mouse CD117 (c-Kit)

Catalog # / Size: 1129165 / 25 µg
1129170 / 100 µg

Clone: 2B8

Isotype: Rat IgG2b, κ

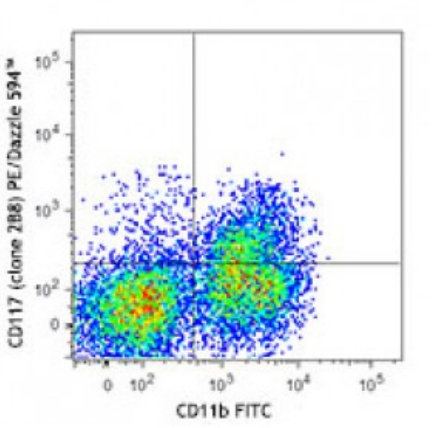
Immunogen: Mouse bone marrow mast cells

Reactivity: Mouse

Preparation: The antibody was purified by affinity chromatography and conjugated with PE/Dazzle™ 594 under optimal conditions. The solution is free of unconjugated PE/Dazzle™ 594 and unconjugated antibody.

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

Concentration: 0.2



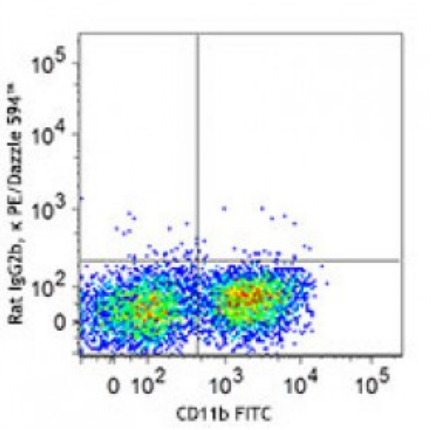
C57BL/6 mouse bone marrow cells were stained with CD11b FITC and CD117 (clone 2B8) PE/Dazzle 594™ (top) or rat IgG2b, κ PE/Dazzle 594™ isotype control (bottom). Data shown was gated on total cell population.

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 ≤0.25 microg per million cells in 100 microL volume. It is recommended that the reagent be titrated for optimal performance for each application.

* PE/Dazzle™ 594 has a maximum excitation of 566 nm and a maximum emission of 610 nm.



Application Notes: Additional reported applications (for the relevant formats) include: immunoprecipitation1 and immunohistochemistry of acetone fixed frozen sections2. The 2B8 antibody does not block c-Kit activity.

Application References:

1. Ikuta K, *et al.* 1992. *P. Natl. Acad. Sci. USA* 89:1502. (FC)
2. Podd BS, *et al.* 2006. *J. Immunol.* 176:6532. PubMed (IHC)
3. Bachelet I, *et al.* 2008. *J. Immunol.* 180:6064. PubMed (FC)
4. Charles N, *et al.* 2010. *Nat. Med.* 16:701. PubMed (FC)

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,