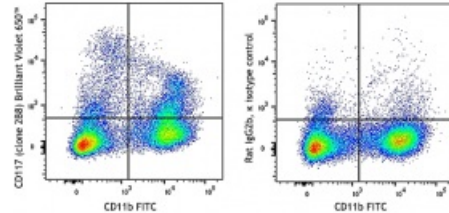


Brilliant Violet 650™ anti-mouse CD117 (c-kit)**Catalog # / Size:** 1129265 / 50 µg**Clone:** 2B8**Isotype:** Rat IgG2b, κ**Immunogen:** Mouse bone marrow mast cells**Reactivity:** Mouse**Preparation:** The antibody was purified by affinity chromatography and conjugated with Brilliant Violet 650™ under optimal conditions.**Formulation:** Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and BSA (origin USA)**Concentration:** 0.2 mg/mL

C57BL/6 mouse bone marrow cells were stained with CD11b FITC and CD117 (c-kit) (clone 2B8) Brilliant Violet 650™ (left) or rat IgG2b, κ Brilliant Violet 650™ isotype control (right).

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

Brilliant Violet 650™ excites at 405 nm and emits at 645 nm. The bandpass filter 660/20 nm is recommended for detection, although filter optimization may be required depending on other fluorophores used. Be sure to verify that your cytometer configuration and software setup are appropriate for detecting this channel. Refer to your instrument manual or manufacturer for support. Brilliant Violet 650™ is a trademark of Sirigen Group Ltd.

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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:

- 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)

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.