SONY

Product Data Sheet

FITC anti-mouse CD117 (c-kit)

Catalog # / Size: 1275575 / 50 µg

Clone: ACK2

Isotype: Rat IgG2b, κ

Immunogen: Murine IL-3 dependent mast cells

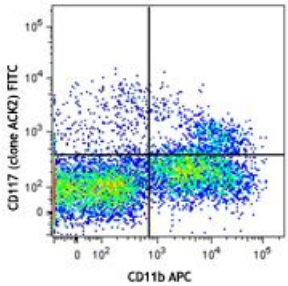
Reactivity: Mouse

Preparation: The antibody was purified by affinity chromatography and conjugated with FITC under optimal conditions.

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

Workshop Number: VII 70322

Concentration: 0.5

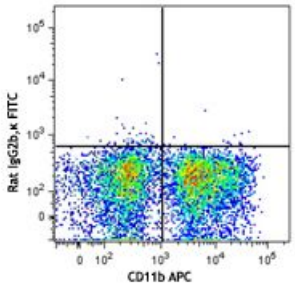


C57BL/6 mouse bone marrow cells were stained with CD11b APC and CD117 (clone ACK2) FITC (top) or rat IgG2b, κFITC isotype control (bottom). Data shown was gated on total bone marrow cells.

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.



Application Notes: Injection of ACK2 in mice of NOD genetic background is not recommended as mice develop immediate anaphylaxis, resulting in animal death. Treatment is possible with co-injection of Benadryl.3

ACK2 has been reported to block c-Kit function. The LEAF™ purified antibody (Endotoxin <0.1 EU/µg, Azide-Free, 0.2 µm filtered) is recommended for functional assays (Cat. No. 135103). For highly sensitive assays, we recommend Ultra-LEAF™ purified antibody (Cat. No. 135114) with a lower endotoxin limit than standard LEAF™ purified antibodies (Endotoxin <0.01 EU/microg).

Application References:

1. Yoshinaga K, *et al.* 1991. *Development* 113:689.
2. Broudy VC, *et al.* 1996. *Blood* 88:75.
3. Louvet C, *et al.* 2008. *Proc. Natl. Acad. Sci. USA* 105:18895.

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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. *et al.* 1990. *Cell* 63:5.

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