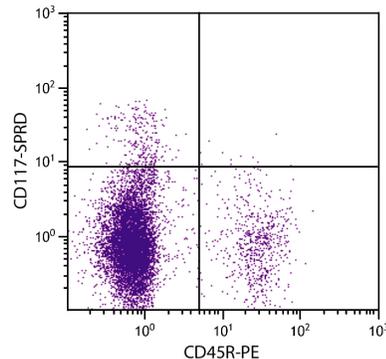




Rat Anti-Mouse CD117

Cat. No.	Format	Size
1880-01	Purified (UNLB)	0.5 mg
1880-02	Fluorescein (FITC)	0.5 mg
1880-08	Biotin (BIOT)	0.5 mg
1880-09	R-phycoerythrin (PE)	0.1 mg
1880-09L	R-phycoerythrin (PE)	0.2 mg
1880-11	Allophycocyanin (APC)	0.1 mg
1880-13	Spectral Red® (SPRD)	0.1 mg
1880-14	Low Endotoxin, Azide-Free (LE/AF)	0.5 mg
1880-15	Cyanine 5 (CY5)	0.1 mg
1880-18	Allophycocyanin-Cyanine 5.5 (APC/CY5.5)	0.1 mg
1880-19	Allophycocyanin-Cyanine 7 (APC/CY7)	0.1 mg
1880-26	Pacific Blue™ (PACBLU)	0.1 mg
1880-27	Alexa Fluor® 700 (AF700)	0.1 mg
1880-30	Alexa Fluor® 488 (AF488)	0.1 mg
1880-31	Alexa Fluor® 647 (AF647)	0.1 mg



C57BL/6 mouse bone marrow cells were stained with Rat Anti-Mouse CD117-SPRD (SB Cat. No. 1880-13) and Rat Anti-Mouse CD45R-PE (SB Cat. No. 1665-09).

Overview

Clone	2B8
Isotype	Rat (Wistar) IgG _{2b} K
Immunogen	Mouse IL-3-dependent bone marrow mast cells
Specificity	Mouse CD117; Mr 150 kDa
Alternate Name(s)	c-Kit, mast cell growth factor, stem cell factor, steel factor, SCF

Description

The CD117 (c-Kit) antigen is the cell-surface receptor for stem cell factor (SCF). Together these molecules constitute a ligand/receptor pair which functions to maintain normal hematopoiesis in the adult. Signaling through SCF/c-Kit has an important role in stimulating myeloid and erythroid production of primitive hematopoietic progenitor cells. A variety of cytokines act synergistically with SCF to stimulate proliferation and differentiation of bone marrow progenitor cells. For example, SCF plus IL-7 can stimulate the combined myeloid and B cell differentiation of uncommitted hematopoietic progenitor cells. SCF/c-Kit also participates in erythropoiesis in both the bone marrow and spleen. Loss-of-function mutations for SCF/c-Kit lead to a variety of pleiotropic developmental defects while gain-of-function mutations can lead to constitutive activation of the kit receptor and links to cancer. Examples of the former are mast cell deficiency and severe macrocytic anemia while the latter mutation has been identified in mastocytomas.

Applications

FC – Quality tested ^{1,4-8}
 IHC-FS – Reported in literature ²
 ICC – Reported in literature ³
 IP – Reported in literature ¹

Working Dilutions

Flow Cytometry	FITC and PACBLU conjugates	≤ 1 µg/10 ⁶ cells
	BIOT conjugate	≤ 0.3 µg/10 ⁶ cells
	PE, APC, SPRD, CY5, APC/CY5.5, and APC/CY7 conjugates	≤ 0.2 µg/10 ⁶ cells
	AF488 and AF700 conjugates	≤ 0.1 µg/10 ⁶ cells
	AF647 conjugate	≤ 0.05 µg/10 ⁶ cells
	For flow cytometry, the suggested use of these reagents is in a final volume of 100 µL	

Other Applications Since applications vary, you should determine the optimum working dilution for the product that is appropriate for your specific need.

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Handling and Storage

- The purified (UNLB) antibody is supplied as 0.5 mg of purified immunoglobulin in 1.0 mL of borate buffered saline, pH 8.2. *No preservatives or amine-containing buffer salts added.* Store at 2-8°C.
- The fluorescein (FITC) conjugate is supplied as 0.5 mg in 1.0 mL of PBS/NaN₃. Store at 2-8°C.
- The biotin (BIOT) conjugate is supplied as 0.5 mg in 1.0 mL of PBS/NaN₃. Store at 2-8°C.
- The R-phycoerythrin (PE) conjugate is supplied as 0.1 mg in 1.0 mL or 0.2 mg in 2.0 mL of PBS/NaN₃ and a stabilizing agent. Store at 2-8°C. **Do not freeze!**
- The allophycocyanin (APC) conjugate is supplied as 0.1 mg in 1.0 mL of PBS/NaN₃ and a stabilizing agent. Store at 2-8°C. **Do not freeze!**
- The Spectral Red® (SPRD), allophycocyanin-Cyanine 5.5 (APC/CY5.5), and allophycocyanin-Cyanine 7 (APC/CY7) conjugates are supplied as 0.1 mg in 1.0 mL of PBS/NaN₃ and a stabilizing agent. Store at 2-8°C. **Do not freeze!**
- The low endotoxin, azide-free (LE/AF) antibody is supplied as 0.5 mg purified immunoglobulin in 1.0 mL of PBS. Contains no preservative; handle under aseptic conditions. Store at 2-8°C or aliquot into smaller volumes and store at -20°C. Avoid multiple freeze / thaw cycles.
- The Cyanine 5 (CY5) conjugate is supplied as 0.1 mg in 1.0 mL of PBS/NaN₃. Store at 2-8°C.
- The Alexa Fluor® 488 (AF488), Alexa Fluor® 647 (AF647), Alexa Fluor® 700 (AF700), and Pacific Blue™ (PACBLU) conjugates are supplied as 0.1 mg in 0.2 mL of PBS/NaN₃. Store at 2-8°C.
- Protect fluorochrome-conjugated forms from light. Reagents are stable for the period shown on the label if stored as directed.

Warning

Some reagents contain sodium azide. Please refer to product specific SDS.

References

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8. Ikami K, Tokue M, Sugimoto R, Noda C, Kobayashi S, Hara K, et al. Hierarchical differentiation competence in response to retinoic acid ensures stem cell maintenance during mouse spermatogenesis. *Development.* 2015;142:1582-92. (FC)

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