

CD117 (c-Kit) Monoclonal Antibody (2B8), Super Bright™ 780, eBioscience™

Product Details	
Size	100 µg
Species Reactivity	Mouse, Pig
Host/Isotype	Rat / IgG2b, kappa
Recommended Isotype Control	Rat IgG2b kappa Isotype Control (eB149/10H5), Super Bright™ 780, eBioscience™
Class	Monoclonal
Type	Antibody
Clone	2B8
Conjugate	Super Bright™ 780
Excitation/Emission Max	413/780 nm
Form	Liquid
Concentration	0.2 mg/mL
Purification	Affinity chromatography
Storage buffer	PBS, pH 7.2, with BSA
Contains	0.09% sodium azide
Storage conditions	4° C, store in dark, DO NOT FREEZE!
RRID	AB_2734864

Applications	Tested Dilution	Publications
Western Blot (WB)	-	1 Publication
Immunocytochemistry (ICC/IF)	-	1 Publication
Flow Cytometry (Flow)	0.125 µg/test	20 Publications

Product Specific Information

Description: The 2B8 monoclonal antibody reacts with mouse CD117, also known as c-Kit receptor, Steel factor receptor, and stem cell factor receptor. A member of the tyrosine kinase receptor family, this 145-kDa molecule is expressed by a majority of hematopoietic progenitor cells characterized in the mouse bone marrow as a small subset of cells positive for Sca-1 and Thy1 (Thy1 low) and negative for lineage markers. The interaction of the mouse c-Kit receptor and steel factor promotes the proliferation and differentiation of hematopoietic progenitor cells. CD117 is also expressed by mast cells and plays a role in signaling and activation of these cells.

Applications Reported: This 2B8 antibody has been reported for use in flow cytometric analysis.

Applications Tested: This 2B8 antibody has been tested by flow cytometric analysis of mouse bone marrow cells. This can be used at less than or equal to 0.125 µg per test. A test is defined as the amount (µg) of antibody that will stain a cell sample in a final volume of 100 µL. Cell number should be determined empirically but can range from 10⁵ to 10⁸ cells/test. It is recommended that the antibody be carefully titrated for optimal performance in the assay of interest.

Super Bright 780 is a tandem dye that can be excited with the violet laser line (405 nm) and emits at 780 nm. We recommend using a 780/60 bandpass filter. Please make sure that your instrument is capable of detecting this fluorochrome.

When using two or more Super Bright dye-conjugated antibodies in a staining panel, it is recommended to use Super Bright Complete Staining Buffer (Product # SB-4401) to minimize any non-specific polymer interactions. Please refer to the datasheet for Super Bright Staining Buffer for more information.

In some experiments, we have observed that compensation values for Super Bright 780-conjugated antibodies are higher in the violet 450/50 channel when using UltraComp eBeads microspheres (Product # 01-2222-42) as compared to single-color stained cells. In such circumstances, we would recommend setting compensation with cells. We have also observed this in some experiments using AbC Total Antibody Compensation beads (Product # A10497).

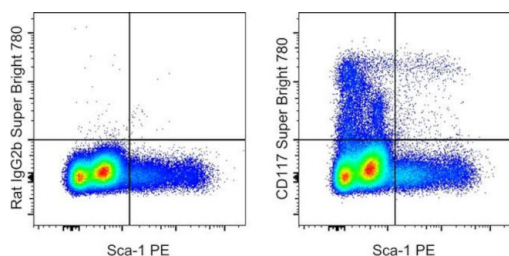
Light sensitivity: This tandem dye is sensitive to photo-induced oxidation. Please protect this vial and stained samples from light.

Fixation: Samples can be stored in IC Fixation Buffer (Product # 00-8222) (100 μ L of cell sample + 100 μ L of IC Fixation Buffer) or 1-step Fix/Lyse Solution (Product # 00-5333) for up to 3 days in the dark at 4°C with minimal impact on brightness and FRET efficiency/compensation. Some generalizations regarding fluorophore performance after fixation can be made, but clone specific performance should be determined empirically.

Excitation: 405 nm; Emission: 780 nm; Laser: Violet Laser

Super Bright Polymer Dyes are sold under license from Becton, Dickinson and Company.

Product Images For CD117 (c-Kit) Monoclonal Antibody (2B8), Super Bright™ 780, eBioscience™



CD117 (c-Kit) Antibody (78-1171-82) in Flow

C57BL/6 mouse splenocytes were stained with Ly-6A/E (Sca-1) Monoclonal Antibody, PE (Product # 12-5981-82) and 0.06 μ g of Rat IgG2b kappa Isotype Control, Super Bright 780 (Product # 78-4031-82) (left) or 0.06 μ g of CD117 (c-kit) Monoclonal Antibody, Super Bright 780 (right). Cells in the Lineage negative /low gate were used for analysis.

[View more figures on thermofisher.com](https://www.thermofisher.com)

Western Blot (1)

Circulation research

Abi3bp regulates cardiac progenitor cell proliferation and differentiation.

"Published figure using CD117 (c-Kit) monoclonal antibody (Product # 78-1171-82) in Flow Cytometry"

Authors: Hodgkinson CP, Gomez JA, Payne AJ, Zhang L, Wang X, Dal-Pra S, Pratt RE, Dzau VJ

Year
2014

Immunocytochemistry (1)

Stem cells (Dayton, Ohio)

Bone marrow-derived myeloid progenitors in the leptomeninges of adult mice.

"Published figure using CD117 (c-Kit) monoclonal antibody (Product # 78-1171-82) in Immunocytochemistry"

Authors: Koeniger T, Bell L, Mifka A, Enders M, Hautmann V, Mekala SR, Kirchner P, Ekici AB, Schulz C, Wörsdörfer P, Mencil S, Kleinschnitz C, Ergün S, Kuerten S

Year
2021

Flow Cytometry (20)

Frontiers in pain research (Lausanne, Switzerland)

mMCP7, a Mouse Ortholog of Tryptase, Mediates Pelvic Tactile Allodynia in a Model of Chronic Pelvic Pain.

"Published figure using CD117 (c-Kit) monoclonal antibody (Product # 78-1171-82) in Flow Cytometry"

Authors: Pattabiraman G, Liu Z, Paul M, Schaeffer AJ, Thumbikat P

Year
2023

Frontiers in cell and developmental biology

Endothelial progenitor cells derived from embryonic stem cells prevent alveolar simplification in a murine model of bronchopulmonary dysplasia.

"Published figure using CD117 (c-Kit) monoclonal antibody (Product # 78-1171-82) in Flow Cytometry"

Authors: Kolesnichenko OA, Flood HM, Zhang Y, Ustiyani V, Cuervo Jimenez HK, Kalin TV, Kalinichenko VV

Year
2023

[View more Flow references on thermofisher.com](#)

More applications with references on thermofisher.com

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