

# CD117 (c-Kit) Monoclonal Antibody (2B8), Super Bright™ 702, eBioscience™

| Product Details             |   |
|-----------------------------|---|
| Size                        | 100 µg  |
| Species Reactivity          | Mouse, Pig  |
| Published Species           | Mouse   |
| Host/Isotype                | Rat / IgG2b, kappa  |
| Recommended Isotype Control | Rat IgG2b kappa Isotype Control (eB149/10H5), Super Bright™ 702, eBioscience™ |
| Class                       | Monoclonal  |
| Type                        | Antibody  |
| Clone                       | 2B8   |
| Conjugate                   | Super Bright™ 702   |
| Excitation/Emission Max     | 413/702 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_2717159  |

| Applications                 | Tested Dilution | Publications    |
|------------------------------|-----------------|-----------------|
| 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 may 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 10<sup>5</sup> to 10<sup>8</sup> cells/test. It is recommended that the antibody be carefully titrated for optimal performance in the assay of interest.

Super Bright 702 is a tandem dye that can be excited with the violet laser line (405 nm) and emits at 702 nm. We recommend using a 710/50 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.

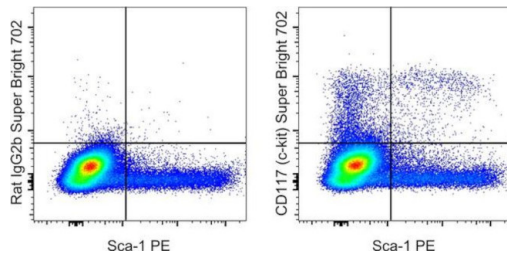
Light sensitivity: This tandem dye is sensitive to photo-induced oxidation. Please protect this vial and stained samples from light.

Fixation: Samples can be stored in IC Fixation Buffer (Product # 00-8222) (100  $\mu$ L of cell sample + 100  $\mu$ 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: 702 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™ 702, eBioscience™



### CD117 (c-Kit) Antibody (67-1171-82) in Flow

C57BL/6 mouse bone marrow cells were stained with Mouse Hematopoietic Lineage Antibody Cocktail, eFluor® 450 (Product # 88-7772-72), Sca-1 Monoclonal Antibody, PE (Product # 12-5981-82) and 0.06  $\mu$ g of Rat IgG2b kappa Isotype Control, Super Bright 702 (Product # 67-4031-82) (left) or 0.06  $\mu$ g of CD117 (c-Kit) Monoclonal Antibody, Super Bright 702 (right). Lineage negative /low, viable cells, as determined by Fixable Viability Dye eFluor® 780 (Product # 65-0865-14), were used for analysis.

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

## 21 References

### 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 # 67-1171-82) in Immunocytochemistry"

Authors: Koeniger T, Bell L, Mifka A, Enders M, Hautmann V, Mekala SR, Kirchner P, Ekici AB, Schulz C, Wörsdörfer P, Menci 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 # 67-1171-82) in Flow Cytometry"

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

Year  
2023

Scientific reports

#### Gastruloids as in vitro models of embryonic blood development with spatial and temporal resolution.

"Published figure using CD117 (c-Kit) monoclonal antibody (Product # 67-1171-82) in Flow Cytometry"

Authors: Rossi G, Giger S, Hübscher T, Lutolf MP

Year  
2022

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