

# CD117 (c-Kit) Monoclonal Antibody (2B8), PE-Cyanine7, eBioscience™

Product Details	
Size	100 µg
Species Reactivity	Mouse, Pig
Published Species	Artificial Control, Fish, Mouse
Host/Isotype	Rat / IgG2b, kappa
Recommended Isotype Control	Rat IgG2b kappa Isotype Control (eB149/10H5), PE-Cyanine7, eBioscience™
Class	Monoclonal
Type	Antibody
Clone	2B8
Conjugate	PE-Cyanine7
Form	Liquid
Concentration	0.2 mg/mL
Purification	Affinity chromatography
Storage buffer	PBS, pH 7.2, with 0.1% gelatin
Contains	0.09% sodium azide
Storage Conditions	4° C, store in dark, DO NOT FREEZE!
RRID	AB_469644

Applications	Tested Dilution	Publications
Flow Cytometry (Flow)	1 µg/test	77 Publications
Immunofluorescence (IF)	-	1 Publication
Miscellaneous PubMed (Misc)	-	1 Publication

## 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 1 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.

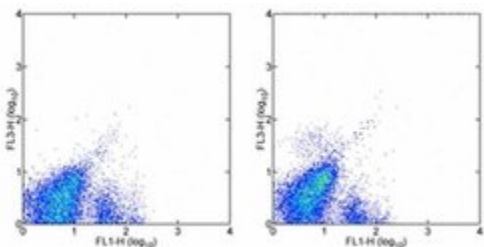
Light sensitivity: This tandem dye is sensitive to photo-induced oxidation. Please protect this vial and stained samples from light.

Fixation: Samples can be stored in IC Fixation Buffer (cat. 00-8222) (100  $\mu$ L of cell sample + 100  $\mu$ L of IC Fixation Buffer) or 1-step Fix/Lyse Solution (cat. 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: 488-561 nm; Emission: 775 nm; Laser: Blue Laser, Green Laser, Yellow-Green Laser.

Filtration: 0.2  $\mu$ m post-manufacturing filtered.

## Product Images For CD117 (c-Kit) Monoclonal Antibody (2B8), PE-Cyanine7, eBioscience™



### CD117 (c-Kit) Antibody (25-1171-82) in Flow

Staining of C57BL/6 bone marrow cells with Anti-Human/Mouse CD45R (B220) FITC (Product # 11-0452-82) and 0.5  $\mu$ g of Rat IgG2b K Isotype Control PE-Cyanine7 (Product # 25-4031-82) (left) or 0.5  $\mu$ g of Anti-Mouse CD117 (c-Kit) PE-Cyanine7 (right). Total viable cells were used for analysis.

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

## Immunofluorescence (1)

### Nature medicine

#### Chemotherapy-induced bone marrow nerve injury impairs hematopoietic regeneration.

"25-1171 was used in Flow cytometry/Cell sorting to demonstrate the potential benefit of adrenergic nerve protection for shielding hematopoietic niches from injury."

Authors: Lucas D,Scheiermann C,Chow A,Kunisaki Y,Bruns I,Barrick C,Tessarollo L,Frenette PS

**Species**  
Mouse

**Dilution**  
1:100

**Year**  
2013

## Flow Cytometry (77)

### Nature communications

#### Single-cell tracking of flavivirus RNA uncovers species-specific interactions with the immune system dictating disease outcome.

"25-1171 was used in Flow cytometry/Cell sorting to demonstrate the tracking of and sense viral RNA at single-cell resolution within complex subsets of the human and murine immune system in different mouse models."

Authors: Douam F,Hrebikova G,Albrecht YE,Sellau J,Sharon Y,Ding Q,Ploss A

**Species**  
Mouse

**Dilution**  
1:100

**Year**  
2017

### PloS one

#### Alkylator-Induced and Patient-Derived Xenograft Mouse Models of Therapy-Related Myeloid Neoplasms Model Clinical Disease and Suggest the Presence of Multiple Cell Subpopulations with Leukemia Stem Cell Activity.

"25-1171 was used in Flow cytometry/Cell sorting to report several new t-AML/MDS mouse models that could potentially be used to further define disease pathogenesis and test novel therapeutics."

Authors: Jonas BA,Johnson C,Gratzinger D,Majeti R

**Species**  
Mouse

**Dilution**  
Not Cited

**Year**  
2017

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

## Miscellaneous PubMed (1)

### Experimental hematology

#### Annexin-2 is a regulator of stromal cell-derived factor-1/CXCL12 function in the hematopoietic stem cell endosteal niche.

"25-1171 was used in Magnetic cell separation to investigate the role that annexin-2 plays in presenting stromal cell-derived factor-1 to hematopoietic stem cells."

Authors: Jung Y,Shiozawa Y,Wang J,Patel LR,Havens AM,Song J,Krebsbach PH,Roodman GD,Taichman RS

**Species**  
Mouse

**Dilution**  
Not Cited

**Year**  
2011

## More applications with references on thermofisher.com

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