CD117 (c-Kit) Monoclonal Antibody (2B8), APC-eFluor™ 780, eBioscience™

Product Details	
Size	100 µg
Species Reactivity	Mouse, Pig
Published Species	Human, Mouse
Host/Isotype	Rat / IgG2b, kappa
Recommended Isotype Control	Rat IgG2b kappa Isotype Control (eB149/10H5), APC-eFluor™ 780, eBioscience™
Class	Monoclonal
Type	Antibody
Clone	2B8
Conjugate	APC-eFluor™ 780
Excitation/Emission Max	756/785 nm
Form	Liquid
Concentration	0.2 mg/mL
Purification	Affinity chromatography
Storage buffer	PBS, pH 7.2
Contains	0.09% sodium azide
Storage conditions	4° C, store in dark, DO NOT FREEZE!
RRID	AB_1272177

Applications	Tested Dilution	Publications
Flow Cytometry (Flow)	0.125 µg/test	86 Publications
Functional Assay (FN)	-	1 Publication
In vitro Assay (IV)	-	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 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 10^5 to 10^8 cells/test. It is recommended that the antibody be carefully titrated for optimal performance in the assay of interest.

APC-eFluor 780 emits at 780 nm and is excited with the Red laser (633 nm). Please make sure that your instrument is capable of detecting this fluorochome.

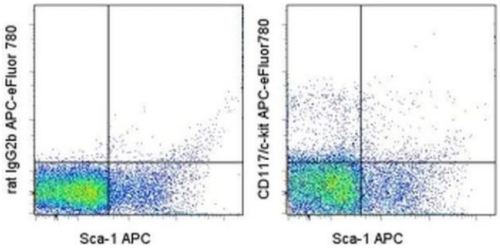
Light sensitivity: This tandem is sensitive to photo-induced oxidation. Please protect this vial and stained samples from light.

Fixation: Samples can be stored in IC Fixation Buffer (cat. 00-8222) (100 µL cell sample + 100 µL 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: 633-647 nm; Emission: 780 nm; Laser: Red Laser.

Filtration: 0.2 µm post-manufacturing filtered.

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



CD117 (c-Kit) Antibody (47-1171-82) in Flow
Staining of C57BL/6 bone marrow cells with Anti-Mouse Ly-6A/E (Sca-1) PE (Product # 12-5981-82) and staining buffer (autofluorescence) (left) or 0.06 µg of Anti-Mouse CD117 (c-Kit) APC-eFluor® 780 (right). Cells in the Lineage (low) gate were used for analysis.

88 References

Flow Cytometry (86)

Frontiers in immunology

Insulin-regulated aminopeptidase contributes to setting the intensity of FcR-mediated inflammation.

"47-1171-82 was used in Flow cytometry/Cell sorting to illustrate that IRAP-positive endosomal compartments, in promoting SHP-1 inhibition during FcR signaling, control the extent of phosphorylation events at the plasma membrane and contribute to setting the intensity of immune-complex triggered inflammatory diseases."

Authors: Bratti M,Vibhushan S,Longé C,Koumantou D,Ménasché G,Benhamou M,Varin-Blank N,Blank U,Saveanu L, Ben Mkaddem S

Year
2022

Species
Mouse

Cell reports

PDGFR^{+} cells play a dual role as hematopoietic precursors and niche cells during mouse ontogeny.

"47-1171-82 was used in Flow cytometry/Cell sorting to demonstrate that PDGFR+ cells play a dual role in murine hematopoiesis."

Authors: Sá da Bandeira D,Kilpatrick AM,Marques M,Gomez-Salazar M,Ventura T,Gonzalez ZN,Stefancova D,Rossi F, Vermeren M,Vink CS,Beltran M,Henderson NC,Jung B,van der Linden R,van de Werken HJG,van Ijcken WFJ,Betsholtz C,Forbes SJ,Cuervo H,Crisan M

Year
2022

Species
Mouse

Dilution
1:800

View more Flow references on thermofisher.com

Functional Assay (1)

eLife

Mice deficient of *Myc* super-enhancer region reveal differential control mechanism between normal and pathological growth.

"47-1171 was used in Functional assays to show that a deletion in the gene desert upstream of the MYC oncogene on chromosome 8q24 can confer tumourigenic resistance."

Authors: Dave K,Sur I,Yan J,Zhang J,Kaasinen E,Zhong F,Blaas L,Li X,Kharazi S,Gustafsson C,De Paepe A,Månsson R,Taipale J

Year
2017

Species
Mouse

In vitro Assay (1)

Blood

HIF prolyl hydroxylase 2 (PHD2) is a critical regulator of hematopoietic stem cell maintenance during steady-state and stress.

"47-1171 was used in Flow cytometry/Cell sorting to study the role of PHD2 in HSC compartment maintenance."

Authors: Singh RP,Franke K,Kalucka J,Mamlouk S,Muschter A,Gembarska A,Grinenko T,Willam C,Naumann R, Anastassiadis K,Stewart AF,Bornstein S,Chavakis T,Breier G,Waskow C,Wielockx B

Year
2013

Species
Mouse

More applications with references on thermofisher.com