

Ly-6A/E (Sca-1) Monoclonal Antibody (D7), PE-eFluor 610, eBioscience™

Product Details	
Size	100 µg
Species Reactivity	Mouse
Published Species	Artificial Control, Fish, Mouse
Host/Isotype	Rat / IgG2a, kappa
Recommended Isotype Control	Rat IgG2a kappa Isotype Control (eBR2a), PE-eFluor 610, eBioscience™
Class	Monoclonal
Type	Antibody
Clone	D7
Conjugate	PE-eFluor® 610
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_2574648

Applications	Tested Dilution	Publications
Flow Cytometry (Flow)	0.5 µg/test	45 Publications

Product Specific Information

Description: The D7 monoclonal antibody reacts with mouse Sca-1, an 18 kDa member of the Ly-6 family of GPI-linked surface proteins. D7 reacts with both Ly-6E.1 and Ly-6A.2 molecules expressed by mouse hematopoietic stem cells, myeloid population and peripheral T and B cells. Non-activated splenocytes from Ly-6.2 strains including C57BL, SJL, 129, AKR, and others demonstrate higher frequency of D7-positive cells compared to the Ly-6.1 strains such as BALB/c, C3H, NZB and others. Sca-1 is expressed at high levels upon activation regardless of the Ly-6 haplotype. The Ly-6 family is involved in regulation and function of T cell activation. Sca-1 is a major phenotypic marker for mouse hematopoietic progenitor/stem cell subset.

Applications Reported: This D7 antibody has been reported for use in flow cytometric analysis.

Applications Tested: This D7 antibody has been tested by flow cytometric analysis of mouse bone marrow cells. This can be used at less than or equal to 0.5 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.

PE-eFluor® 610 can be excited with laser lines from 488-561 nm and emits at 607 nm. We recommend using a 610/20 band pass filter (equivalent to PE-Texas Red®). Please make sure that your instrument is capable of detecting this fluorochrome.

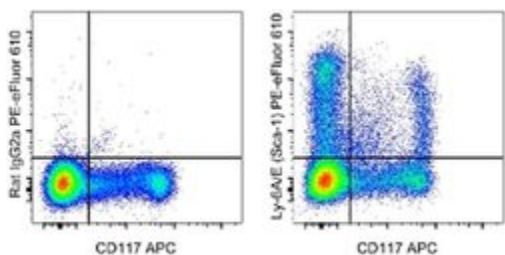
Light sensitivity: This tandem dye is sensitive to photo-induced oxidation. Please protect this vial and stained samples from light.

Fixation: Samples can be stored in IC Fixation Buffer (cat. 00-8222) (100 μ L of cell sample + 100 μ 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: 607 nm; Laser: Blue Laser, Green Laser, Yellow-Green Laser.

Filtration: 0.2 μ m post-manufacturing filtered.

Product Images For Ly-6A/E (Sca-1) Monoclonal Antibody (D7), PE-eFluor 610, eBioscience™



Ly-6A/E (Sca-1) Antibody (61-5981-82) in Flow

Staining of C57Bl/6 bone marrow cells with Mouse Hematopoietic Lineage Cocktail eFluor® 450 (Product # 88-7772-72), Anti-Mouse CD117 (c-Kit) APC (Product # 17-1171-82), and 0.25 μ g of Rat IgG2a K Isotype Control PE-eFluor® 610 (Product # 61-4321-82) (left) or 0.25 μ g of Anti-Mouse Ly-6A/E (Sca-1) PE-eFluor® 610 (right). Lineage negative/low viable cells, as determined by Fixable Viability Dye eFluor® 506 (Product # 65-0866-14), were used for analysis.

[View more figures on thermofisher.com](#)

45 References

Flow Cytometry (45)

The EMBO journal

CTC1 deletion results in defective telomere replication, leading to catastrophic telomere loss and stem cell exhaustion.

"Published figure using Ly-6A/E (Sca-1) monoclonal antibody (Product # 61-5981-82) in Flow Cytometry"

Authors: Gu P, Min JN, Wang Y, Huang C, Peng T, Chai W, Chang S

Species
Fish

Dilution
Not Cited

Year
2012

The Journal of clinical investigation

Cis-element mutated in GATA2-dependent immunodeficiency governs hematopoiesis and vascular integrity.

"Published figure using Ly-6A/E (Sca-1) monoclonal antibody (Product # 61-5981-82) in Flow Cytometry"

Authors: Johnson KD, Hsu AP, Ryu MJ, Wang J, Gao X, Boyer ME, Liu Y, Lee Y, Calvo KR, Keles S, Zhang J, Holland SM, Bresnick EH

Species
Not Applicable

Dilution
Not Cited

Year
2012

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

More applications with references on thermofisher.com

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