

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

Product Details

Size	50 µg
Species Reactivity	Mouse
Published Species	Hamster, Fish, Mouse, Human
Host/Isotype	Rat / IgG2a, kappa
Recommended Isotype Control	Rat IgG2a kappa Isotype Control (eBR2a), PE, eBioscience™
Class	Monoclonal
Type	Antibody
Clone	D7
Conjugate	PE
Excitation/Emission Max	565/576 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_466085

Applications	Tested Dilution	Publications
Immunohistochemistry (IHC)	-	1 Publication
Immunocytochemistry (ICC/IF)	-	1 Publication
Flow Cytometry (Flow)	0.25 µg/test	164 Publications
Miscellaneous PubMed (Misc)	-	2 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.

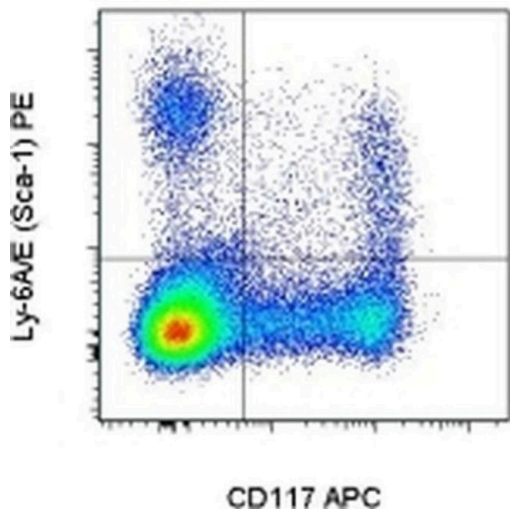
Applications Reported: This D7 antibody has been reported for use in flow cytometric analysis.

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 0.25 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.

Excitation: 488-561 nm; **Emission:** 578 nm; **Laser:** Blue Laser, Green Laser, Yellow-Green Laser.

Filtration: 0.2 µm post-manufacturing filtered.

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



Ly-6A/E (Sca-1) Antibody (12-5981-81) 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 0.125 µg of Anti-Mouse Ly-6A/E (Sca-1) PE. Lineage negative/low, viable cells, as determined by 7-AAD (Product # 00-6993-50), were used for analysis.

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Immunohistochemistry (1)

NPJ Regenerative medicine	Year 2021
Differential activation of Ca²⁺ influx channels modulate stem cell potency, their proliferation/viability and tissue regeneration.	Species Mouse
"Published figure using Ly-6A/E (Sca-1) monoclonal antibody (Product # 12-5981-82) in Immunohistochemistry"	
Authors: Ahamad N,Sun Y,Nascimento Da Conceicao V,Xavier Paul Ezhilan CRD,Natarajan M,Singh BB	

Immunocytochemistry (1)

NPJ Regenerative medicine	Year 2021
Differential activation of Ca²⁺ influx channels modulate stem cell potency, their proliferation/viability and tissue regeneration.	Species Mouse
"Published figure using Ly-6A/E (Sca-1) monoclonal antibody (Product # 12-5981-82) in Immunohistochemistry"	
Authors: Ahamad N,Sun Y,Nascimento Da Conceicao V,Xavier Paul Ezhilan CRD,Natarajan M,Singh BB	

Flow Cytometry (164)

International journal of molecular sciences	Year 2023
STS1 and STS2 Phosphatase Inhibitor Baicalein Enhances the Expansion of Hematopoietic and Progenitor Stem Cells and Alleviates 5-Fluorouracil-Induced Myelosuppression.	Species Mouse
"Published figure using Ly-6A/E (Sca-1) monoclonal antibody (Product # 12-5981-82) in Flow Cytometry"	
Authors: Li N,Wang Y,Wang A,Zhang J,Jia C,Yu C,Song Z,Wang S,Liu L,Yi J,Bao Y,Huang Y,Sun L	

Biomedical reports	Year 2023
Immunostimulatory effects of a subcritical water extract of <i>Ganoderma</i>.	Species Mouse
"12-5981-82 was used in Flow cytometry/Cell sorting to demonstrate that Ganoderma (SWEG) increased hematopoietic precursor cells, immature B cells, and NK cells in the bone marrow, and T cells in the thymus."	
Authors: Hattori K,Takagi H,Ogata Y,Yamada T,Horiba H,Fukata K,Sakaida T,Yashiro Y,Hasegawa S,Tanaka H	

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

More applications with references on thermofisher.com

Misc (2)

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