

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

Product Details	
Size	50 µg
Species	Mouse
Published Species	Artificial Control, Fish, Mouse
Expression System	Rat / IgG2a, kappa
Recommended Isotype Control	Rat IgG2a kappa Isotype Control (eBR2a), PE, eBioscience™
Class	Monoclonal
Type	Antibody
Clone	D7
Conjugate	PE
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_466085

Applications	Tested Dilution	Publications
Flow Cytometry (Flow)	0.25 µg/test	110 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.

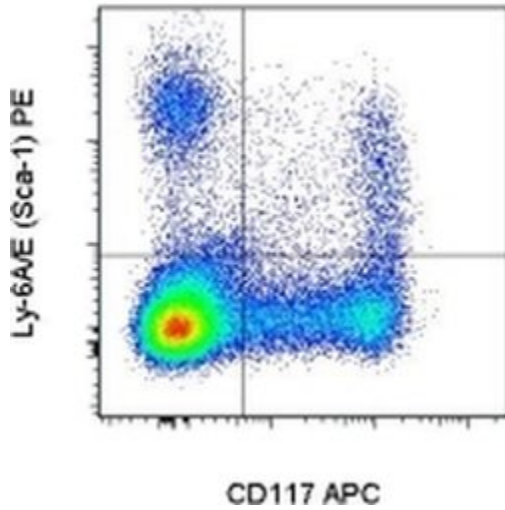
Applications Reported: This D7 antibody has been reported for use in flow cytometric analysis.

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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Flow Cytometry (110)

Stem cell research and therapy

Multipotency of mouse trophoblast stem cells.

"Published figure using Ly-6A/E (Sca-1) monoclonal antibody (Product # 12-5981-82) in Flow Cytometry"

Authors: Hou M,Han J,Li G,Kwon MY,Jiang J,Emami S,Taglauer ES,Park JA,Choi EB,Vodnala M,Fong YW,Emami SM,Rosas IO,Perrella MA,Liu X

Species
Artificial Control

Dilution
Not Cited

Year
2020

PLoS pathogens

PDGFRA defines the mesenchymal stem cell Kaposi's sarcoma progenitors by enabling KSHV oncogenesis in an angiogenic environment.

"Published figure using Ly-6A/E (Sca-1) monoclonal antibody (Product # 12-5981-82) in Flow Cytometry"

Authors: Naipauer J,Rosario S,Gupta S,Premer C,Méndez-Solís O,Schlesinger M,Ponzinibbio V,Jain V,Gay L,Renne R,Chan HL,Morey L,Salyakina D,Abba M,Williams S,Hare JM,Goldschmidt-Clermont PJ,Mesri EA

Species
Artificial Control

Dilution
Not Cited

Year
2019

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Miscellaneous PubMed (2)

Nature medicine

Metastatic cancers promote cachexia through ZIP14 upregulation in skeletal muscle.

"12-5981 was used in Magnetic cell separation to identify the metal-ion transporter ZRT- and IRT-like protein 14 as a critical mediator of cancer-induced cachexia."

Authors: Wang G,Biswas AK,Ma W,Kandpal M,Coker C,Grandgenett PM,Hollingsworth MA,Jain R,Tanji K,López-Pintado S,Borczuk A,Hebert D,Jenkitkasernwong S,Hojyo S,Davuluri RV,Knutson MD,Fukada T,Acharyya S

Species
Mouse

Dilution
1:100

Year
2018

Scientific reports

Complement C3 of the innate immune system secreted by muscle adipogenic cells promotes myogenic differentiation.

"12-5981 was used in Flow cytometry/Cell sorting to study how innate immune system secretions promotes myogenic differentiation."

Authors: Rouaud T,Siami N,Dupas T,Gervier P,Gardahaut MF,Auda-Boucher G,Thiriet C

Species
Mouse

Dilution
1:50

Year
2017

More applications with references on thermofisher.com

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