

Ly-6A/E (Sca-1) Monoclonal Antibody (D7), Alexa Fluor 700, eBioscience™

Product Details	
Size	100 µg
Species Reactivity	Mouse
Published Species	Artificial Control, Fish, Mouse, Human
Host/Isotype	Rat / IgG2a, kappa
Recommended Isotype Control	Rat IgG2a kappa Isotype Control (eBR2a), Alexa Fluor 700, eBioscience™
Class	Monoclonal
Type	Antibody
Clone	D7
Conjugate	Alexa Fluor® 700
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_657836

Applications	Tested Dilution	Publications
Flow Cytometry (Flow)	0.5 µg/test	66 Publications
Immunocytochemistry (ICC)	-	1 Publication
Immunofluorescence (IF)	-	6 Publications
Immunohistochemistry (IHC)	-	3 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.

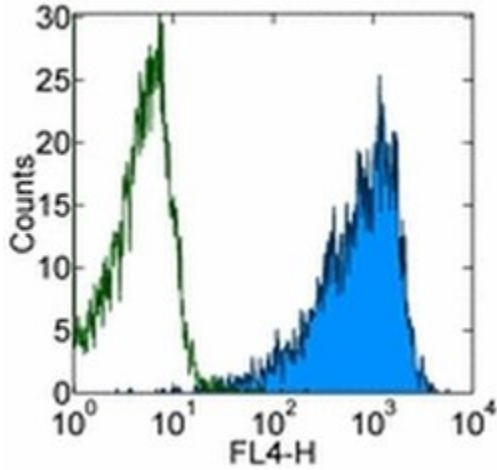
Applications Tested: This D7 antibody has been tested by flow cytometric analysis of mouse splenocytes. This can be used at less than or equal to 0.5 µg per test. A test is defined as the amount (µg) of antibody that will stain a cell sample in a final volume of 100 µL. Cell number should be determined 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.

Alexa Fluor® 700 emits at 723 nm and can be excited with the red laser (633 nm). Most instruments will require a 685 LP mirror and 710/20 filter. Please make sure that your instrument is capable of detecting this fluorochrome.

Excitation: 633-647 nm; Emission: 723 nm; Laser: Red Laser.

Filtration: 0.2 µm post-manufacturing filtered.

Product Images For Ly-6A/E (Sca-1) Monoclonal Antibody (D7), Alexa Fluor 700, eBioscience™



Ly-6A/E (Sca-1) Antibody (56-5981-82) in Flow

Staining of 3-day Con A-stimulated C57BL/6 splenocytes with 0.25 µg of Rat IgG2a K Isotype Control Alexa Fluor® 700 (Product # 56-4321-80) (open histogram) or 0.25 µg of Anti-Mouse Ly-6A/E (Sca-1) Alexa Fluor® 700 (filled histogram). Total viable cells were used for analysis.

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

Immunohistochemistry (3)

Scientific reports

Identification of a CD133-CD55- population functions as a fetal common skeletal progenitor.

"Published figure using Ly-6A/E (Sca-1) monoclonal antibody (Product # 56-5981-82) in Flow Cytometry"

Authors: Weng L,Hu X,Kumar B,Garcia M,Todorov I,Jung X,Marcucci G,Forman SJ,Chen CC

Species
Not Applicable

Dilution
Not Cited

Year
2016

BMC biotechnology

Reporter gene-expressing bone marrow-derived stromal cells are immune-tolerated following implantation in the central nervous system of syngeneic immunocompetent mice.

"Published figure using Ly-6A/E (Sca-1) monoclonal antibody (Product # 56-5981-82) in Flow Cytometry"

Authors: Bergwerf I,De Vocht N,Tambuyzer B,Verschueren J,Reekmans K,Daans J,Ibrahimi A, Van Tendeloo V, Chatterjee S,Goossens H,Jorens PG,Baekelandt V,Ysebaert D, Van Marck E,Berneman ZN,Linden AV,Ponsaerts P

Species
Not Applicable

Dilution
Not Cited

Year
2009

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

Immunocytochemistry (1)

Stem cell research and therapy

Multipotency of mouse trophoblast stem cells.

"Published figure using Ly-6A/E (Sca-1) monoclonal antibody (Product # 56-5981-82) in Flow Cytometry"

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

Species
Artificial Control

Dilution
Not Cited

Year
2020

Immunofluorescence (6)

Nature medicine

KLF4-dependent phenotypic modulation of smooth muscle cells has a key role in atherosclerotic plaque pathogenesis.

"Published figure using Ly-6A/E (Sca-1) monoclonal antibody (Product # 56-5981-82) in Flow Cytometry"

Authors: Shankman LS,Gomez D,Cherepanova OA,Salmon M,Alencar GF,Haskins RM,Swiatlowska P,Newman AA, Greene ES,Straub AC,Isakson B,Randolph GJ,Owens GK

Species
Not Applicable

Dilution
Not Cited

Year
2015

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More applications with references on thermofisher.com

Flow (66)

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