

## Product Information

Contents: Phycoerythrin (PE) anti-mouse Sca-1 (Ly-6A/E)

Catalog Number: 12-5981

Sizes: 50 ug, 100 ug, 200 ug

Formulation: Phosphate buffer pH 7.2,  
150 mM NaCl, 0.09% NaN<sub>3</sub>

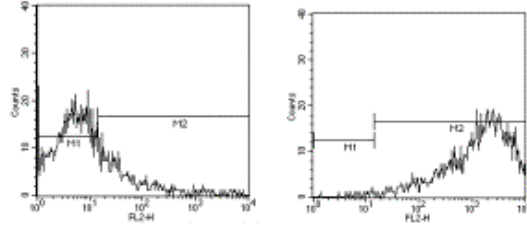
Storage Conditions: Store at 4°C.

DO NOT FREEZE.

LIGHT SENSITIVE MATERIAL.

Clone: D7

Isotype: Rat IgG2a, κ



Staining of 3 day ConA-activated (right) or unstimulated (left) BALB/c mouse splenocytes with 0.06 µg of PE D7. Total viable cells were analyzed. Markers were set based on the autofluorescence sample

### Available Formats of This Product

Cat. No.	Format	Excite (nm)	Emit (nm)	Reported Applications
11-5981	FITC anti-mouse Ly-6A/E (Sca-1, Sca1)	488	518	FC
12-5981	PE anti-mouse Ly-6A/E (Sca-1, Sca1)	488	575	FC
13-5981	Biotin anti-mouse Ly-6A/E (Sca-1, Sca1)	N/A	N/A	FC
14-5981	Affinity Purified anti-mouse Ly-6A/E (Sca-1, Sca1)	N/A	N/A	FC IP WB
15-5981	PE-Cy5 anti-mouse Ly-6A/E (Sca-1, Sca1)	488	670	FC
16-5981	Functional Grade* Purified anti-mouse Ly-6A/E (Sca-1, Sca1)	N/A	N/A	FC
17-5981	APC anti-mouse Ly-6A/E (Sca-1, Sca1)	633	660	FC
25-5981	Phycoerythrin-Cy7 (PE-Cy7) anti-mouse Ly-6A/E (Sca-1, Sca1)	488	760	FC
35-5981	Phycoerythrin-Cy5.5 (PE-Cy5.5) anti-mouse Ly-6A/E (Sca-1, Sca1)	488	690	FC

\*Functional Grade™ (FG™): Azide-free, sterile-filtered, and endotoxin < 0.001 ng/µg.  
Purified: Contains azide, not sterile-filtered, and not endotoxin tested.

## 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.

## Usage

For research use only, not for diagnostic or therapeutic use. D7 has been reported for use in flow cytometric analysis.

## Applications Tested

The D7 antibody has been tested by flow cytometric analysis of mouse bone marrow cell suspensions and ConA-activated splenocytes and can be used at less than or equal to 0.5 µg/million cells. It is recommended that the antibody be carefully titrated for optimal performance in the assay of interest.

## Related Products

Cat. 12-4321 PE Rat IgG2a Isotype Control

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## References

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Ortega, G., P. E. Kory, et al. (1986). "Role of Ly-6 in lymphocyte activation. I. Characterization of a monoclonal antibody to a nonpolymorphic Ly-6 specificity." J Immunol 137(10): 3240-6.

Malek, T. R., G. Ortega, et al. (1986). "Role of Ly-6 in lymphocyte activation. II. Induction of T cell activation by monoclonal anti-Ly-6 antibodies." J Exp Med 164(3): 709-22.

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