PE anti-mouse Ly-6A/E (Sca-1) Antibody

Catalog# / Size  122507 / 50 µg  
122508 / 200 µg

Clone  E13-161.7

Regulatory Status  RUO

Other Names  Sca-1

Isotype  Rat IgG2a, κ

Description  Ly-6A/E is an 18 kD member of the Ly-6 multigene family also known as Sca-1. Ly6A/E is a glycosylphosphatidylinositol (GPI)-linked protein expressed on hematopoietic stem cells. In mice expressing the Ly-6.2 haplotype (e.g., AKR, C57BL, C57BR, DBA/2, SJL, SWR, and 129), Ly-6A/E is also expressed on peripheral B lymphocytes and thymic and peripheral T lymphocytes. Strains expressing the Ly-6.1 haplotype (e.g., BALB/c, CBA, C3H/He, DBA/1, and NZB) have low Ly-6A/E expression on resting peripheral lymphocytes. The expression of Ly-6A/E on lymphocytes is upregulated upon activation from both Ly6.1 and Ly6.2 haplotype mice. Ly-6A/E is thought to be involved in the regulation of both T and B cell responses. The E13-161.7 antibody has been reported to be useful for immunohistochemical staining of frozen sections, immunoprecipitation, flow cytometry, and complement-mediated cytotoxicity.

Product Details

Reactivity  Mouse

Antibody Type  Monoclonal

Host Species  Rat

Immunogen  mouse pre-T cells

Formulation  Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide.

Preparation  The antibody was purified by affinity chromatography, and conjugated with PE under optimal conditions.

Concentration  0.2 mg/ml

Storage & Handling  The antibody solution should be stored undiluted between 2°C and 8°C, and protected from prolonged exposure to light. Do not freeze.

Application  FC - Quality tested

Recommended Usage  Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis. For flow cytometric staining, the suggested use of this reagent is ≤0.5 µg per million cells in 100 µl volume. It is recommended that the reagent be titrated for optimal performance for each application.

Excitation Laser  Blue Laser (488 nm)  
Green Laser (532 nm)/Yellow-Green Laser (561 nm)

Application Notes  Additional reported applications (for the relevant formats) include: complement-mediated cytotoxicity\(^1\), immunohistochemical staining of frozen sections\(^2\) and Bouin-fixed, paraffin-embedded samples\(^3\), immunofluorescence microscopy\(^4\), and immunoprecipitation\(^5\).

The two Sca-1 recognizing clones D7 and E13-161.7 have been shown to bind distinct epitopes due to the inability of D7 to block the binding of E13-161.7.\(^6\)

Application References


(PubMed link indicates BioLegend citation)
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### Product Citations


### RRID

- AB_756192 (BioLegend Cat. No. 122507)
- AB_756193 (BioLegend Cat. No. 122508)

### Antigen Details

**Structure**
Ly-6 multigene family, 18 kD

**Distribution**
Hematopoietic stem cells, activated T cells and B cells, subset of resting B cells and T cells

**Function**
Regulates B and T cell responses

**Cell Type**
Hematopoietic stem and progenitors, T cells, B cells, Mesenchymal Stem Cells

**Biology Area**
Immunology, Stem Cells

### Antigen References


### Gene ID

110454

### Related Protocols

- **Cell Surface Flow Cytometry Staining Protocol**

### Other Formats

- APC/Fire™ 750 anti-mouse Ly-6A/E (Sca-1), PE/Dazzle™ 594 anti-mouse Ly-6A/E (Sca-1), Purified anti-mouse Ly-6A/E (Sca-1), Biotin anti-mouse Ly-6A/E (Sca-1), FITC anti-mouse Ly-6A/E (Sca-1), PE anti-mouse Ly-6A/E (Sca-1), APC anti-mouse Ly-6A/E (Sca-1), PE/Cyanine7 anti-mouse Ly-6A/E (Sca-1), Alexa Fluor® 488 anti-mouse Ly-6A/E (Sca-1), Alexa Fluor® 647 anti-mouse Ly-6A/E (Sca-1), Pacific Blue™ anti-mouse Ly-6A/E (Sca-1), PerCP/Cyanine5.5 anti-mouse Ly-6A/E (Sca-1)

### Product Data

C57BL/6 mouse splenocytes stained with E13-161.7 PE
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