

PE/Dazzle™ 594 anti-mouse Ly-6A/E (Sca-1) Antibody

Catalog# / Size	122527 / 25 µg 122528 / 100 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

Verified 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/Dazzle™ 594 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 ≤0.125 µg per million cells in 100 µl volume. It is recommended that the reagent be titrated for optimal performance for each application. * PE/Dazzle™ 594 has a maximum excitation of 566 nm and a maximum emission of 610 nm.
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 ⁴ , immunofluorescence microscopy ⁴ , and immunoprecipitation ³ . 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 ⁷ .
Application References	1. Aihara Y, <i>et al.</i> 1986. <i>Eur. J. Immunol.</i> 16:1391. (CMCD) 2. Spangrude GJ, <i>et al.</i> 1988. <i>J. Immunol.</i> 141:3697. (IHC) 3. van de Rijn M, <i>et al.</i> 1989. <i>P. Natl. Acad. Sci. USA</i> 86:4634. (IP) 4. Bamezai A and Rock KL. 1995. <i>Proc. Natl. Acad. Sci. USA</i> 92:4294.
(PubMed link indicates BioLegend citation)	

5. van Bragt MPA, *et al.* 2005. *Biol. Reprod.* 73:634. (IHC, IF)
6. Brandi C, *et al.* 2009. *Exp Eye Res.* 89:209. [PubMed](#)
7. Rosas M, *et al.* 2010. *J. Leukoc. Biol.* 88:169. [PubMed](#)
8. Felthouse O, *et al.* 2010. *Neurosci Lett.* 471:179. [PubMed](#)
- 9.

RRID AB_2687354 (BioLegend Cat. No. 122527)
 AB_2687355 (BioLegend Cat. No. 122528)

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, B cells, T cells, Mesenchymal Stem Cells
Biology Area	Immunology, Stem Cells
Antigen References	<ol style="list-style-type: none"> 1. Rock KL, <i>et al.</i> 1989. <i>Immunol. Rev.</i> 111:195. 2. Morrison SJ, <i>et al.</i> 1994. <i>Immunity</i> 1:661. 3. Spangrude GJ, <i>et al.</i> 1988. <i>J. Immunol.</i> 141:3697. 4. Malek T, <i>et al.</i> 1986. <i>J. Exp. Med.</i> 164:709.
Gene ID	110454

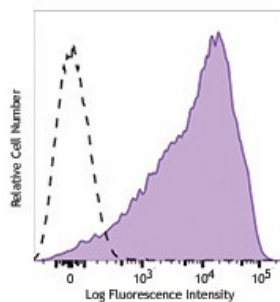
Related Protocols

[Cell Surface Flow Cytometry Staining Protocol](#)

Other Formats

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), APC/Fire™ 750 anti-mouse Ly-6A/E (Sca-1), PE/Dazzle™ 594 anti-mouse Ly-6A/E (Sca-1)

Product Data



C57BL/6 mouse splenocytes were stained with Ly-6A/E (clone E13-161.7) PE/Dazzle™ 594 (filled histogram) or rat IgG2a, κ PE/Dazzle™ 594 isotype control (open histogram).

For research use only. Not for diagnostic use. Not for resale. BioLegend will not be held responsible for patent infringement or other violations that may occur with the use of our products.

*These products may be covered by one or more Limited Use Label Licenses (see the BioLegend Catalog or our website, www.biolegend.com/ordering#license). BioLegend products may not be transferred to third parties, resold, modified for resale, or used to manufacture commercial products, reverse engineer functionally similar materials, or to provide a service to third parties without written approval of BioLegend. By use of these products you accept the terms and conditions of all applicable Limited Use Label Licenses. Unless otherwise indicated, these products are for research use only and are not intended for human or animal diagnostic, therapeutic or commercial use.

8999 BioLegend Way, San Diego, CA 92121 www.biolegend.com
Toll-Free Phone: 1-877-Bio-Legend (246-5343) Phone: (858) 768-5800 Fax: (877) 455-9587