SONY

Product Data Sheet

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

Catalog # / Size: 1212640 / 100 µg
1212635 / 25 µg

Clone: E13-161.7

Isotype: Rat IgG2a, κ

Immunogen: Mouse pre-T cells

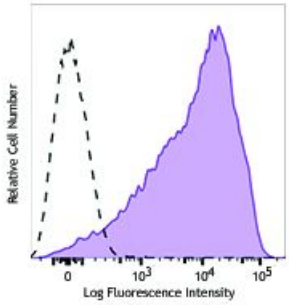
Reactivity: Mouse

Preparation: The antibody was purified by affinity chromatography and conjugated with PE/Dazzle™ 594 under optimal conditions.

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

Workshop Number: 750 under optimal conditions.

Concentration: 0.2



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).

Applications:

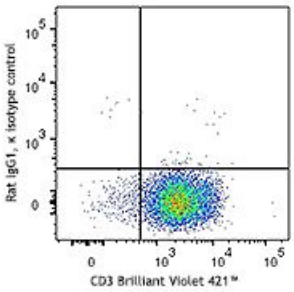
Applications: Flow Cytometry

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 ≤0.25 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.

Application Notes: Additional reported applications (for the relevant formats) include: complement-mediated cytoxicity[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.



C57BL/6 mouse bone marrow cells were stained with CD150 (SLAM) (clone TC15-12F12.2) APC/Fire™ 750 (filled histogram) or rat IgG2a, κ APC/Fire™ 750 isotype control (open histogram).

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Application References:

1. Aihara Y, *et al.* 1986. *Eur. J. Immunol.* 16:1391. (CMCD)
2. Spangrude GJ, *et al.* 1988. *J. Immunol.* 141:3697. (IHC)
3. van de Rijin M, *et al.* 1989. *P. Natl. Acad. Sci. USA* 86:4634. (IP)
4. Bamezai A and Rock KL. 1995. Proc. Natl. Acad. Sci. USA 92:4294.
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. Felthause O, *et al.* 2010. *Neurosci Lett.* 471:179. PubMed
9.

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.

Antigen References:

1. Rock KL, *et al.* 1989. *Immunol. Rev.* 111:195.
2. Morrison SJ, *et al.* 1994. *Immunity* 1:661.
3. Spangrude GJ, *et al.* 1988. *J. Immunol.* 141:3697.
4. Malek T, *et al.* 1986. *J. Exp. Med.* 164:709.

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