SONY

Product Data Sheet

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

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

Clone: E13-161.7

Isotype: Rat IgG2a, κ

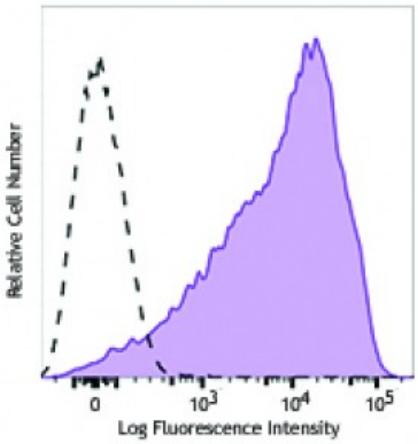
Immunogen: Vitronectin receptor protein from the mouse T-cell hybridoma 2B4

Reactivity: Mouse

Preparation: Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide. The antibody was purified by affinity chromatography and conjugated with PE/Cy7 under optimal conditions. The solution is free of unconjugated PE/Cy7 and unconjugated antibody.

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

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 microg per million cells in 100 microL 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 cytoxicity1, immunohistochemical staining of frozen sections[2] and Bouin-fixed, paraffin-embedded samples4, immunofluorescence microscopy4, and immunoprecipitation3.

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. Kieffer N, *et al.* 1990. *Annu. Rev. Cell Biol.* 6:329. (Block)
2. Piali L, *et al.* 1995. *J. Cell Biol.* 130:451. (Block)
3. Ashkar S, *et al.* 2000. *Science* 287:860. (Block)
4. Schultz JF, *et al.* 1995. *J. Biol. Chem.* 270:11522. (Block)
5. Moulder K, *et al.* 1991. *J. Exp. Med.* 173:343. (Activ)
6. Carlson TR, *et al.* 2008.135:2193. PubMed
7. Yamaji D, *et al.* 2009. *Genes Dev.* 23:2382. PubMed

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. Barclay A, *et al.* 1997. The Leukocyte Antigen FactsBook. Academic Press.
2. Phillips DR, *et al.* 1991. *Cell* 65:359.
3. Felding-Habermann B, *et al.* 1993. *Curr. Opinion Cell Biol.* 5:864.