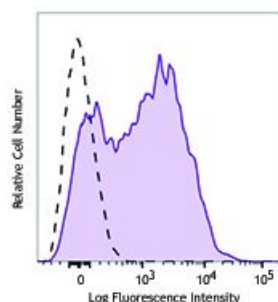


**APC/Fire™ 750 anti-mouse Ly-6A/E (Sca-1)**

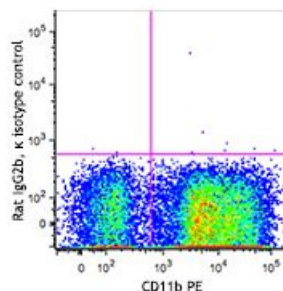
<b>Catalog # /</b>	1140730 / 100 µg
<b>Size:</b>	1140725 / 25 µg
<b>Clone:</b>	D7
<b>Isotype:</b>	Rat IgG2a, κ
<b>Immunogen:</b>	IL-2-dependent mouse T-cell line (CTL-L)
<b>Reactivity:</b>	Mouse
<b>Preparation:</b>	The antibody was purified by affinity chromatography and conjugated with APC/Fire™
<b>Formulation:</b>	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide.
<b>Workshop Number:</b>	750 under optimal conditions.
<b>Concentration:</b>	0.2 mg/ml



C57BL/6 mouse splenocytes were stained with Ly-6A/E (clone D7) APC/Fire™ 750 (filled histogram) or rat IgG2a, κ APC/Fire™ 750 isotype control (open histogram).

**Applications:**

<b>Applications:</b>	Flow Cytometry
<b>Recommended Usage:</b>	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.



\* APC/Fire™ 750 has a maximum excitation of 650 nm and a maximum emission of 787 nm.

<b>Application Notes:</b>	The D7 antibody has been reported to induce T cell activation and inhibit TCR-induced IL-2 production. Additional reported applications (for the relevant formats) include: Western blotting <sup>1,2</sup> , immunoprecipitation <sup>1</sup> , <i>in vitro</i> lymphocyte activation <sup>3-6</sup> , induction of redirected lysis <sup>7</sup> , induction of T cell inhibitory signalling <sup>8</sup> , immunofluorescence <sup>9</sup> , and immunohistochemical staining of acetone-fixed frozen sections <sup>13</sup> and Bouin-fixed, paraffin-embedded samples <sup>9</sup> .
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**Application  
References:**

1. Ortega G, et al. 1986. *J. Immunol.* 137:3240. (WB, IP)
  2. Palfree RGE, et al. 1986. *Immunogenetics* 23:197. (WB)
  3. Codias EK, et al. 1990. *J. Immunol.* 144:2197.
  4. Malek TR, et al. 1986. *J. Exp. Med.* 164:709.
  5. Codias EK, et al. 1990. *J. Immunol.* 145:1407.
  6. Ivanov V, et al. 1994. *J. Immunol.* 153:2394.
  7. Karlhofer FM, et al. 1991. *J. Immunol.* 146:3662.
  8. Fleming T, et al. 1994. *J. Immunol.* 153:1955.
  9. van Bragt MPA, et al. 2005. *Biol. Reprod.* 73:634. (IF, IHC)
  10. Umland O, et al. 2007. *J. Immunol.* 178:4147.
  11. Cridland SO, et al. 2009. *Blood Cell. Mol. Dis.* 45:149. (FC) [PubMed](#)
  12. Pronk CJ, et al. 2011. *J. Exp Med.* [PubMed](#)
  13. English A, et al. 2000. *J. Immunol.* 165:3763. (IHC)
  14. Bamezai A and Rock KL. 1995. *Proc. Natl. Acad. Sci. USA* 92:4294.
  15. Wiesner DL, et al. 2015. *PLoS Pathog.* 11:1004701. [PubMed](#)
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**Description:**

Ly-6A/E, also known as Sca-1, is an 18 kD member of the Ly-6 multigene family. 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.

**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.