

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

<b>Catalog# / Size</b>	108101 / 50 µg 108102 / 500 µg
<b>Clone</b>	D7
<b>Regulatory Status</b>	RUO
<b>Other Names</b>	Sca-1
<b>Isotype</b>	Rat IgG2a, κ
<b>Description</b>	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.

### Product Details

<b>Verified Reactivity</b>	Mouse
<b>Antibody Type</b>	Monoclonal
<b>Host Species</b>	Rat
<b>Immunogen</b>	IL-2-dependent mouse T-cell line (CTL-L)
<b>Formulation</b>	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide.
<b>Preparation</b>	The antibody was purified by affinity chromatography.
<b>Concentration</b>	0.5 mg/ml
<b>Storage &amp; Handling</b>	The antibody solution should be stored undiluted between 2°C and 8°C.
<b>Application</b>	<a href="#">FC - Quality tested</a> <a href="#">WB, IP, IHC - Reported in the literature, not verified in house</a>
<b>Recommended Usage</b>	Each lot of this antibody is quality control tested by <a href="#">immunofluorescent staining with flow cytometric analysis</a> . For flow cytometric staining, the suggested use of this reagent is ≤ 0.25 µg per 10 <sup>6</sup> cells in 100 µl volume. It is recommended that the reagent be titrated for optimal performance for each application.
<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> .  The two Sca-1 recognizing clones D7 and <a href="#">E13-161.7</a> have been shown to bind distinct epitopes due to the inability of D7 to block the binding of E13-161.7. <sup>14</sup>
<b>Application References</b>	<ol style="list-style-type: none"> <li>Ortega G, <i>et al.</i> 1986. <i>J. Immunol.</i> 137:3240. (WB, IP)</li> <li>Palfree RGE, <i>et al.</i> 1986. <i>Immunogenetics</i> 23:197. (WB)</li> <li>Codias EK, <i>et al.</i> 1990. <i>J. Immunol.</i> 144:2197.</li> <li>Malek TR, <i>et al.</i> 1986. <i>J. Exp. Med.</i> 164:709.</li> <li>Codias EK, <i>et al.</i> 1990. <i>J. Immunol.</i> 145:1407.</li> <li>Ivanov V, <i>et al.</i> 1994. <i>J. Immunol.</i> 153:2394.</li> <li>Karlhofer FM, <i>et al.</i> 1991. <i>J. Immunol.</i> 146:3662.</li> <li>Fleming T, <i>et al.</i> 1994. <i>J. Immunol.</i> 153:1955.</li> <li>van Bragt MPA, <i>et al.</i> 2005. <i>Biol. Reprod.</i> 73:634. (IF, IHC)</li> <li>Umland O, <i>et al.</i> 2007. <i>J. Immunol.</i> 178:4147.</li> </ol>
<b>(PubMed link indicates BioLegend citation)</b>	

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**RRID** AB\_313338 (BioLegend Cat. No. 108101)  
 AB\_313339 (BioLegend Cat. No. 108102)

## Antigen Details

<b>Structure</b>	Ly-6 multigene family, 18 kD
<b>Distribution</b>	Hematopoietic stem cells, activated T cells and B cells, subset of resting B cells and T cells
<b>Function</b>	Regulates B and T cell responses
<b>Cell Type</b>	B cells, Hematopoietic stem and progenitors, Mesenchymal Stem Cells, T cells
<b>Biology Area</b>	Immunology, Stem Cells
<b>Antigen References</b>	<ol style="list-style-type: none"> <li>1. Rock KL, <i>et al.</i> 1989. <i>Immunol. Rev.</i> 111:195.</li> <li>2. Morrison SJ, <i>et al.</i> 1994. <i>Immunity</i> 1:661.</li> <li>3. Spangrude GJ, <i>et al.</i> 1988. <i>J. Immunol.</i> 141:3697.</li> <li>4. Malek T, <i>et al.</i> 1986. <i>J. Exp. Med.</i> 164:709.</li> </ol>
<b>Gene ID</b>	<a href="#">110454</a>

## Related Protocols

[Cell Surface Flow Cytometry Staining Protocol](#)

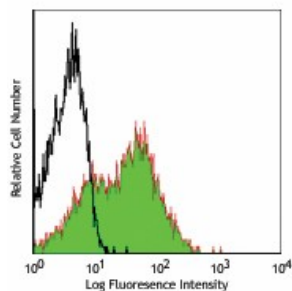
## Other Formats

APC 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), PE/Cyanine5 anti-mouse Ly-6A/E (Sca-1), Purified 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), Brilliant Violet 421™ anti-mouse Ly-6A/E (Sca-1), PerCP anti-mouse Ly-6A/E (Sca-1), PerCP/Cyanine5.5 anti-mouse Ly-6A/E (Sca-1), APC/Cyanine7 anti-mouse Ly-6A/E (Sca-1), Brilliant Violet 510™ anti-mouse Ly-6A/E (Sca-1), Brilliant Violet 711™ anti-mouse Ly-6A/E (Sca-1), Brilliant Violet 605™ anti-mouse Ly-6A/E (Sca-1), Purified anti-mouse Ly-6A/E (Sca-1) (Maxpar® Ready), PE/Dazzle™ 594 anti-mouse Ly-6A/E (Sca-1), Brilliant Violet 785™ anti-mouse Ly-6A/E (Sca-1), Alexa Fluor® 700 anti-

mouse Ly-6A/E (Sca-1), Brilliant Violet 650™ anti-mouse Ly-6A/E (Sca-1), APC/Fire™ 750 anti-mouse Ly-6A/E (Sca-1), TotalSeq™-A0130 anti-mouse Ly-6A/E (Sca-1), TotalSeq™-B0130 anti-mouse Ly-6A/E (Sca-1), TotalSeq™-C0130 anti-mouse Ly-6A/E (Sca-1)

## Product Data

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C57BL/6 splenocytes stained with purified D7, followed by anti-rat IgG FITC

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