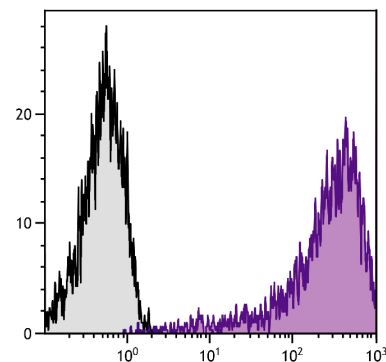




## Rat Anti-Mouse Ly-6A/E

Cat. No.	Format	Size
1755-01	Purified (UNLB)	0.5 mg
1755-02	Fluorescein (FITC)	0.5 mg
1755-08	Biotin (BIOT)	0.5 mg
1755-09	R-phycoerythrin (PE)	0.1 mg
1755-09L	R-phycoerythrin (PE)	0.2 mg
1755-11	Allophycocyanin (APC)	0.1 mg
1755-13	Spectral Red® (SPRD)	0.1 mg
1755-14	Low Endotoxin, Azide-Free (LE/AF)	0.5 mg
1755-26	Pacific Blue™ (PACBLU)	0.1 mg
1755-30	Alexa Fluor® 488 (AF488)	0.1 mg
1755-31	Alexa Fluor® 647 (AF647)	0.1 mg



Con-A stimulated BALB/c mouse splenocytes were stained with Rat Anti-Mouse Ly-6A/E-SPRD (SB Cat. No. 1755-13).

### Overview

<b>Clone</b>	D7
<b>Isotype</b>	Rat (Lewis) IgG <sub>2aκ</sub>
<b>Immunogen</b>	IL-2 dependent mouse (C57BL/6) cytotoxic T cell line CTL-L
<b>Specificity</b>	Mouse Ly-6A/E (Ly-6A.2 & Ly-6E.1); Mr 18 kDa
<b>Alternate Name(s)</b>	Sca-1

### Description

Ly-6A/E, also known as Sca-1, is a member of the Ly-6 multigene family of type V glycosphosphatidylinositol-anchored cell surface proteins. It is expressed on multipotent hematopoietic stem cells in bone marrow of mice with both the Ly-6.1 and Ly-6.2 allotypes. In the periphery, Ly-6A/E exhibits a pattern of expression which is based on differences between the two allotypes. Ly-6.1 strains (e.g., A, BALB/c, CBA, C3H/He, DBA/1, NZB) have few Ly-6A/E<sup>+</sup> resting peripheral lymphocytes whereas Ly-6.2 strains (e.g., AKR, C57BL, C57BR, C57L, DBA/2, PL, SJL, SWR, 129) have relatively high numbers of Ly-6A/E<sup>+</sup> lymphocytes. The expression of Ly-6A/E is dramatically upregulated in all strains upon cellular activation. Studies with the monoclonal antibody D7 suggest that Ly-6A/E may be involved in B and T lymphocyte responses and it appears that the antigen may be required for T-cell receptor-mediated T-cell activation.

### Applications

FC – Quality tested <sup>1,3-7</sup>  
 IHC-FS – Reported in literature <sup>3</sup>  
 IHC-PS – Reported in literature <sup>2</sup>  
 IP – Reported in literature <sup>1,3</sup>  
 WB – Reported in literature <sup>1,3</sup>  
 Costim – Reported in literature <sup>4</sup>

### Working Dilutions

<b>Flow Cytometry</b>	FITC, BIOT, and AF488 conjugates	≤ 1 µg/10 <sup>6</sup> cells
	PE, APC, SPRD, PACBLU, and AF647 conjugates	≤ 0.2 µg/10 <sup>6</sup> cells
	For flow cytometry, the suggested use of these reagents is in a final volume of 100 µL	
<b>Other Applications</b>	Since applications vary, you should determine the optimum working dilution for the product that is appropriate for your specific need.	

**For Research Use Only. Not for Diagnostic or Therapeutic Use.**

## Handling and Storage

- The purified (UNLB) antibody is supplied as 0.5 mg of purified immunoglobulin in 1.0 mL of borate buffered saline, pH 8.2. *No preservatives or amine-containing buffer salts added.* Store at 2-8°C.
- The fluorescein (FITC) conjugate is supplied as 0.5 mg in 1.0 mL of PBS/NaN<sub>3</sub>. Store at 2-8°C.
- The biotin (BIOT) conjugate is supplied as 0.5 mg in 1.0 mL of PBS/NaN<sub>3</sub>. Store at 2-8°C.
- The R-phycoerythrin (PE) conjugate is supplied as 0.1 mg in 1.0 mL or 0.2 mg in 2.0 mL of PBS/NaN<sub>3</sub> and a stabilizing agent. Store at 2-8°C. **Do not freeze!**
- The allophycocyanin (APC) conjugate is supplied as 0.1 mg in 1.0 mL of PBS/NaN<sub>3</sub> and a stabilizing agent. Store at 2-8°C. **Do not freeze!**
- The Spectral Red® (SPRD) conjugate is supplied as 0.1 mg in 1.0 mL of PBS/NaN<sub>3</sub> and a stabilizing agent. Store at 2-8°C. **Do not freeze!**
- The low endotoxin, azide-free (LE/AF) antibody is supplied as 0.5 mg purified immunoglobulin in 1.0 mL of PBS. Contains no preservative; handle under aseptic conditions. Store at 2-8°C or aliquot into smaller volumes and store at -20°C. Avoid multiple freeze / thaw cycles.
- The Alexa Fluor® 488 (AF488), Alexa Fluor® 647 (AF647), and Pacific Blue™ (PACBLU) conjugates are supplied as 0.1 mg in 0.2 mL of PBS/NaN<sub>3</sub>. Store at 2-8°C.
- Protect fluorochrome-conjugated forms from light. Reagents are stable for the period shown on the label if stored as directed.

## Warning

Some reagents contain sodium azide. Please refer to product specific SDS.

## References

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3. English A, Kosoy R, Pawlinski R, Bamezai A. A monoclonal antibody against the 66-kDa protein expressed in mouse spleen and thymus inhibits Ly-6A.2-dependent cell-cell adhesion. J Immunol. 2000;165:3763-71. (FC, IP, WB, IHC-FS)
4. Codias EK, Malek TR. Regulation of B lymphocyte responses to IL-4 and IFN-γ by activation through Ly-6A/E molecules. J Immunol. 1990;144:2197-204. (Costim, FC)
5. George J, Afek A, Abashidze A, Shmilovich H, Deutsch V, Kopolovich J, et al. Transfer of endothelial progenitor and bone marrow cells influences atherosclerotic plaque size and composition in apolipoprotein E knockout mice. Arterioscler Thromb Vasc Biol. 2005;25:2636-41. (FC)
6. Pevsner-Fischer M, Morad V, Cohen-Sfady M, Rousoo-Noori L, Zanin-Zhorov A, Cohen S, et al. Toll-like receptors and their ligands control mesenchymal stem cell functions. Blood. 2007;109:1422-32. (FC)
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Spectral Red® is a PE/CY5 tandem conjugate.

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