Antibodies

Anti-Mouse Sca1 Antibody, Clone E13-161.7, PE

Rat monoclonal IgG2a antibody against mouse Sca1 (Ly-6A/E), PE-conjugated

Catalog	#60032PE	200 µg	0.2 mg/mL
	#60032PE.1	50 µg	0.2 mg/mL

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Product Description

The E13-161.7 antibody reacts with Sca1 (stem cell antigen-1 or Ly-6A/E), an 18 kDa GPI-linked protein belonging to the lymphocyte activation protein-6 (Ly-6) family. Sca1 is expressed on the surface of hematopoietic stem and progenitor cells, myeloid cells, and peripheral B and T lymphocytes. Sca1 is expressed by mice with either the Ly-6.1 or Ly-6.2 allotypes, but the pattern of expression differs in the circulating cell population according to the allotype. Ly-6.2 strains (e.g. AKR, C57BL, C57BR, C57L, DBA/2, PL, SJL, SWR, 129) possess relatively high numbers of Sca1+ resting lymphocytes compared to Ly-6.1 strains (e.g. A, BALB/c, CBA, C3H/He, DBA/1, NZB). Sca1 expression levels are strongly upregulated in all strains upon cellular activation. Sca1 is involved in the regulation of T and B cell responses and is believed to play roles in the differentiation, proliferation, and survival of a variety of stem cells. Sca1 has emerged as a phenotypic marker of choice for identifying and isolating hematopoietic stem and progenitor cells.

Target Antigen Name:	Sca1 (Ly-6A/E)
Alternative Names:	Ly-6A/E, Sca-1
Gene ID:	110454
Species Reactivity:	Mouse
Host Species:	Rat
Clonality:	Monoclonal
Clone:	E13-161.7
Isotype:	IgG2a, kappa
Immunogen:	Mouse pre-T cells
Conjugate:	PE (Phycoerythrin)

Applications

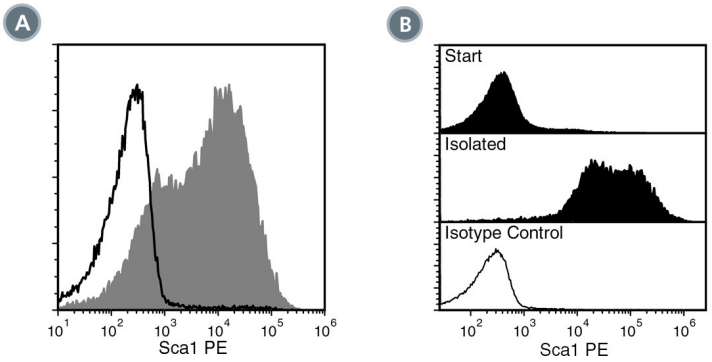
Verified:	CellSep, FC
Reported:	FC

Abbreviations: CellSep: Cell separation; ChIP: Chromatin immunoprecipitation; FA: Functional assay; FACS: Fluorescence-activated cell sorting; FC: Flow cytometry; ICC: Immunocytochemistry; IF: Immunofluorescence microscopy; IHC: Immunohistochemistry; IP: Immunoprecipitation; RIA: Radioimmunoassay; WB: Western blotting

Properties

Formulation:	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide
Purification:	The antibody was purified by affinity chromatography and conjugated with PE under optimal conditions. The solution is free of unconjugated PE and unconjugated antibody.
Stability and Storage:	Product stable at 2 - 8°C when stored undiluted. Do not freeze. Protect product from prolonged exposure to light. For product expiry date, please contact techsupport@stemcell.com.
Directions for Use:	For flow cytometry, the suggested use of this antibody is ≤ 0.5 µg per 1 x 10^6 cells in 100 µL. It is recommended that the antibody be titrated for optimal performance for each application.

Data



(A) Flow cytometry analysis of C57BL/6 mouse splenocytes labeled with Anti-Mouse Sca1 Antibody, Clone E13-161.7, PE (filled histogram) or a rat IgG2a, kappa PE isotype control antibody (solid line histogram).
(B) Flow cytometry analysis of C57BL/6 mouse bone marrow cells processed with the EasySep™ Mouse PE Positve Selection Kit (Catalog #18554), and labeled with Anti-Mouse Sca1 Antibody, Clone E13-161.7, PE. Histograms show labeling of bone marrow (Start) and isolated cells (Isolated). Labeling of start cells with a rat IgG2a, kappa PE isotype control antibody is shown (solid line histogram).

Related Products

For a complete list of antibodies, including other conjugates, sizes and clones, as well as related products available from STEMCELL Technologies, visit www.stemcell.com/antibodies or contact us at techsupport@stemcell.com.

References

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8. Ortega G et al. (1986) Role of Ly-6 in lymphocyte activation. I. Characterization of a monoclonal antibody to a nonpolymorphic Ly-6 specificity. J Immunol 137(10): 3240–6.