Datasheet for ABIN967571

anti-Sca-1/Ly-6A/E antibody

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Overview

Quantity:	0.1 mg
Target:	Sca-1/Ly-6A/E (Ly6a)
Reactivity:	Mouse
Host:	Rat
Clonality:	Monoclonal
Conjugate:	This Sca-1/Ly-6A/E antibody is un-conjugated
Application:	Flow Cytometry (FACS), Western Blotting (WB), Immunoprecipitation (IP), Immunohistochemistry (Frozen Sections) (IHC (fro))

Product Details

Brand:	BD Pharmingen™
Immunogen:	IL-2-dependent mouse T-cell line CTL-L
Clone:	D7
Isotype:	IgG2a kappa
Characteristics:	1. Since applications vary, each investigator should titrate the reagent to obtain optimal results. 2. Please refer to us for technical protocols. 3. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing. 4. Sodium azide is a reversible inhibitor of oxidative metabolism, therefore, antibody preparations containing this preservative agent must not be used in cell cultures nor injected

Product Details

	into animals. Sodium azide may be removed by washing stained cells or plate-bound antibody or dialyzing soluble antibody in sodium azide-free buffer. Since endotoxin may also affect the results of functional studies, we recommend the NA/LE™ (No Azide/Low Endotoxin) antibody format, if available, for in vitro and in vivo use.
Purification:	The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

Target Details

Target:	Sca-1/Ly-6A/E (Ly6a)
Alternative Name:	Ly-6A/E (Ly6a Products)
Background:	The D7 antibody reacts with Ly-6A.2 and Ly-6E.1, which are allelic members of the Ly-6 multigene family. Sca-1 (Ly6A/E), a phosphatidylinositol-anchored protein of about 18 kDa, is expressed on the multipotent hematopoietic stem cells (HSC) in the bone marrow of mice with both Ly-6 haplotypes. In mice expressing the Ly-6.2 haplotype (e.g., AKR, C57BL, C57BR, C57L, C58, DBA/2, PL, SJL, SWR, 129), Ly-6A/E is also expressed on distinct subpopulations of bone marrow and peripheral B lymphocytes and thymic and peripheral T lymphocytes. Strains with the Ly-6.1 haplotype (e.g., A, BALB/c, CBA, C3H/He, DBA/1, NZB) have few Ly-6A/E+ resting peripheral lymphocytes, whereas activation of lymphocytes from mice of both Ly-6 haplotypes leads to strong expression of the Sca-1 antigen. Studies with the D7 antibody have demonstrated that Ly-6A/E may be involved in the regulation of B and T lymphocyte responses, and it appears to be required for T-cell receptor-mediated T-cell activation. Purified E13-161.7 mAb (anti-Ly-6A/E) can block binding of FITC-conjugated D7 antibody to mouse splenocytes, but purified mAb D7 is unable to block binding of FITC-conjugated E13-161.7 antibody. Anti-Ly-6A/E (Sca-1) mAb may be used in combination with the Mouse Lineage Panel to identify HSC. This antibody is routinely tested by flow cytometric analysis. Synonyms: Sca-1
Pathways:	Sensory Perception of Sound, Activated T Cell Proliferation

Application Details

Comment:	Related Products: ABIN967571
Restrictions:	For Research Use only

Handling

Format:	Liquid
Concentration:	0.5 mg/mL
Buffer:	Aqueous buffered solution containing ≤0.09 % sodium azide.
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	4 °C
Storage Comment:	Store undiluted at 4° C.

Publications

Product cited in:

Yonemura, Ku, Lyman, Ogawa: "In vitro expansion of hematopoietic progenitors and maintenance of stem cells: comparison between FLT3/FLK-2 ligand and KIT ligand." in: **Blood**, Vol. 89, Issue 6, pp. 1915-21, (1997) (PubMed).

Ito, Anan, Misawa, Kai, Hara: "In vitro differentiation of murine Sca-1+Lin- cells into myeloid, B cell and T cell lineages." in: **Stem cells (Dayton, Ohio)**, Vol. 14, Issue 4, pp. 412-8, (1996) (PubMed).

Moore, Bennett, Kumar: "Transplantable NK cell progenitors in murine bone marrow." in: **Journal of immunology (Baltimore, Md. : 1950)**, Vol. 154, Issue 4, pp. 1653-63, (1995) (PubMed).

Fleming, Malek: "Multiple glycosylphosphatidylinositol-anchored Ly-6 molecules and transmembrane Ly-6E mediate inhibition of IL-2 production." in: **Journal of immunology (Baltimore, Md. : 1950)**, Vol. 153, Issue 5, pp. 1955-62, (1994) (PubMed).

Flood, Dougherty, Ron: "Inhibition of Ly-6A antigen expression prevents T cell activation." in: **The Journal of experimental medicine**, Vol. 172, Issue 1, pp. 115-20, (1990) (PubMed).

There are more publications referencing this product on: Product page