Product Data Sheet

PerCP/Cy5.5 anti-mouse Ly-6A/E (Sca-1)

Catalog # / Size: $1212615 / 25 \mu g$

1212620 / 100 µg

Rat IgG2a, ĸ

Clone: E13-161.7

Immunogen: mouse pre-T cells

Reactivity: Mouse

Isotype:

Preparation: The antibody was purified by affinity

chromatography, and conjugated with PerCP/Cy5.5 under optimal conditions. The solution is free of unconjugated PerCP/Cy5.5 and unconjugated

antibody.

Formulation: Phosphate-buffered solution, pH 7.2,

containing 0.09% sodium azide.

Concentration: 0.2

Applications:

Applications: Flow Cytometry

Recommended

Usage:

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 microg per 10^6 cells in 100 microL volume. It is recommended that the reagent be titrated for optimal performance for each application.

* PerCP/Cy5.5 has a maximum absorption of 482 nm and a maximum emission of 690 nm.

Application Notes:

Additional reported applications (for the relevant formats) include: complement-mediated cytoxicity1, immunohistochemical staining of frozen sections² and Bouin-fixed, paraffin-embedded samples4, immunofluorescence microscopy4, and immunoprecipitation3.

The two Sca-1 recognizing clones <u>D7</u> and E13-161.7 have been shown to bind distinct epitopes due to the inability of D7 to block the binding of E13-161.7.⁷

Application References:

- 1. Aihara Y, et al. 1986. Eur. J. Immunol. 16:1391. (CMCD)
- 2. Spangrude GJ, et al. 1988. J. Immunol. 141:3697. (IHC)
- 3. van de Rijin M, et al. 1989. P. Natl. Acad. Sci. USA 86:4634. (IP)
- 4. van Bragt MPA, et al. 2005. Biol. Reprod. 73:634. (IHC, IF)
- 5. Rosas M, et al. 2010. J. Leukoc. Biol. 88:169. PubMed
- 6. Felthause O, et al. 2010. Neurosci Lett. 471:179. PubMed
 7. Bamezai A and Rock KL. 1995. Proc. Natl. Acad. Sci. USA 92:4294.

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

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. The E13-161.7 antibody has been reported to be useful for immunohistochemical staining of frozen sections, immunoprecipitation, flow cytometry, and complement-mediated cytotoxicity.

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. <