SONY

# Product Data Sheet

## Alexa Fluor® 647 anti-mouse Ly-6A/E (Sca-1)

**Catalog # / Size:** 1212585 / 25 µg
1212590 / 100 µg

**Clone:** E13-161.7

**Isotype:** Rat IgG2a, κ

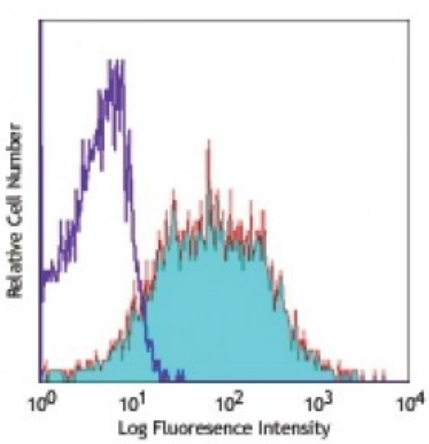
**Immunogen:** mouse pre-T cells

**Reactivity:** Mouse

**Preparation:** The antibody was purified by affinity chromatography, and conjugated with Alexa Fluor® 647 under optimal conditions.

**Formulation:** Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide.

**Concentration:** 0.5




C57BL/6 mouse splenocytes stained with E13-161.7 Alexa Fluor® 647

## Applications:

**Applications:** Immunofluorescence

**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 million cells in 100 microL volume. It is recommended that the reagent be titrated for optimal performance for each application.

* Alexa Fluor® 647 has a maximum emission of 668 nm when it is excited at 633 nm / 635 nm.

**Application Notes:** Additional reported applications (for the relevant formats) include: complement-mediated cytoxicity1, immunohistochemical staining of frozen sections[2] and Bouin-fixed, paraffin-embedded samples4, immunofluorescence microscopy4, and immunoprecipitation3.

The two Sca-1 recognizing clones D7 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.
8. Cano E, *et al.* 2013. *Am J Physiol Lung Cell Mol Physiol.* 305:322. PubMed

**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. <