## **Product Data Sheet**

#### PE/Fire™ 640 anti-human CD8

Catalog # / 2323810 / 100 tests

Size: 2323805 / 25 tests

Clone: SK1

Isotype: Mouse IgG1, ĸ

Reactivity: Human, Non-human primate

Preparation: The antibody was purified by affinity

chromatography and conjugated with

PE/Fire™ 640 under optimal

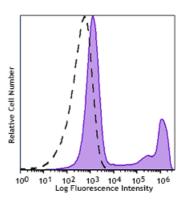
conditions

Phosphate-buffered solution, pH 7.2, Formulation:

containing 0.09% sodium azide and

0.2% (w/v) BSA (origin USA)

Concentration: Lot-specific



Human peripheral blood lymphocytes were stained with CD8 (clone SK1) PE/Fire <sup>™</sup> 640 (filled histogram), or unstained control (open histogram).

### **Applications:**

Flow Cytometry **Applications:** 

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 5 µL per million cells in 100 µL staining volume or 5 µL per 100 µL of whole blood. It is recommended that the reagent be titrated for optimal performance for each application.

\* PE/Fire™ 640 has a maximum excitation of 566 nm and a maximum

emission of 639 nm.

**Application** Notes: Clone SK1 recognizes the a chain of CD8. Additional reported applications (for the relevant formats) include: proteogenomics<sup>8</sup>, immunohistochemistry of acetone-fixed frozen tissue sections. This clone was tested in-house and does not demonstrate utility for formalin-fixed paraffin-embedded (FFPE) human tonsil sections.

**Application** References:

- 1. Ledbetter JA, et al. 1981. J. Exp. Med. 153:310.
- 2. Campanelli R, et al. 2002. Intl. Immunol. 14:39.
- 3. Evans RL, et al. 1981. Immunol. 78:544.
- 4. Wooldridge L, et al. 2005. J. Bio. Chem. 280:27491.
- 5. Ch'el IL, et al. 2011. J Exp Med. 208:633. PubMed
- 6. Carbone A, et al. 1999. Blood 93:2319. (IHC-F)
- 7. Ahmed A, et al. 2001. J. Pathol. 193:383. (IHC)
- 8. Peterson VM, et al. 2017. Nat. Biotechnol. 35:936. (PG)

#### **Description:**

CD8a is a 32-34 kD type I glycoprotein. It forms a homodimer (CD8a/a) or heterodimer (CD8a/b) with CD8b. CD8, also known as T8 and Leu2, is a member of the immunoglobulin superfamily found on the majority of thymocytes, a subset of peripheral blood T cells, and NK cells (which express almost exclusively CD8a homodimers). CD8 acts as a co-receptor with MHC class I-restricted T cell receptors in antigen recognition and T cell activation and has been shown to play a role in thymic differentiation. Two domains in CD8a are important for function: the extracellular IgSF domain binds the  $\alpha_3$  domain of MHC class I and the cytoplasmic CXCP motif binds the tyrosine kinase p56 Lck.

# Antigen References:

1. Barclay N, et al. 1993. The Leucocyte Antigen FactsBook. Academic Press Inc. San Diego.