

**PE/Fire™ 640 anti-human CD3**

**Catalog # /** 2324300 / 100 tests  
**Size:** 2324295 / 25 tests

**Clone:** SK7

**Isotype:** Mouse IgG1, κ

**Immunogen:** Human T cells from a T-ALL patient.

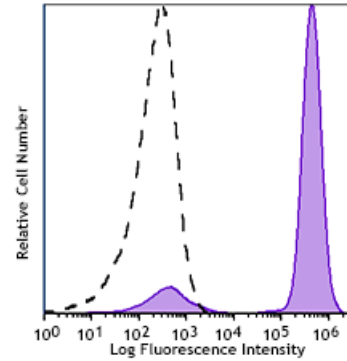
**Reactivity:** Human, Other

**Preparation:** The antibody was purified by affinity chromatography and conjugated with PE/Fire™ 640 under optimal conditions.

**Formulation:** Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and 0.2% (w/v) BSA (origin USA)

**Workshop Number:** HCDM listed

**Concentration:** Lot-specific



Human peripheral blood lymphocytes were stained with CD3 (clone SK7) PE/Fire™ 640 (filled histogram), or unstained control (open histogram).

**Applications:**

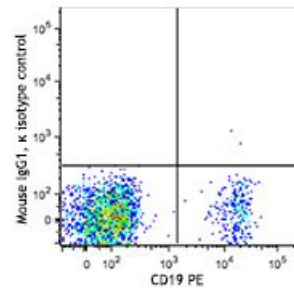
**Applications:** Flow Cytometry

**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 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:** Additional reported application (for the relevant formats) include: immunohistochemical staining of frozen tissue sections<sup>4,5,8</sup>, immunofluorescent staining<sup>6</sup>, and Western blotting<sup>3</sup>.

- Application References:**
1. Kan EA, *et al.* 1983. *J. Immunol.* 131:536.
  2. Wood GS, *et al.* 1985. *Am. J. Pathol.* 120:371.
  3. Van Dongen JJM, *et al.* 1988. *Blood* 71:603. (WB)
  4. Haringman JJ, *et al.* 2005. *Arthritis Res. Ther.* 7:R862. (IHC)
  5. Carbone A, *et al.* 1999. *Blood* 93:2319. (IHC)
  6. Goval JJ, *et al.* 2006. *J. Histochem. Cytochem.* 54:75. (IF)
  7. Rutjens E, *et al.* 2007. *J. Immunol.* 178:1702.
  8. Kap Y, *et al.* 2009. *J. Histochem. Cytochem.* 57:1159. (IHC)
  9. Yoshino N, *et al.* 2000. *Exp. Anim. (Tokyo)* 49:97. (FC)



Human peripheral blood lymphocytes were stained with anti-human CD4 FITC and anti-human CD25 (clone M-A251) Spark YG™ 581 (left) or anti-human CD4 FITC only (right).

**Description:** CD3ε is a 20 kD chain of the CD3/T-cell receptor (TCR) complex, which is composed of two CD3ε, one CD3γ, one CD3δ, one CD3ζ (CD247), and a T-cell receptor (α/β or γ/δ) heterodimer. It is found on all mature T cells, NK T cells, and some thymocytes. CD3, also known as T3, is a member of the immunoglobulin superfamily that plays a role in antigen recognition, signal transduction, and T cell activation.

**Antigen References:**

1. Barclay N, *et al.* 1993. The Leucocyte FactsBook. Academic Press. San Diego.
2. Beverly P, *et al.* 1981. *Eur. J. Immunol.* 11:329.
3. Lanier L, *et al.* 1986. *J. Immunol.* 137:2501.