

**Alexa Fluor® 700 anti-human CD3**

**Catalog # / Size:** 2186700 / 100 tests  
2186695 / 25 tests

**Clone:** OKT3

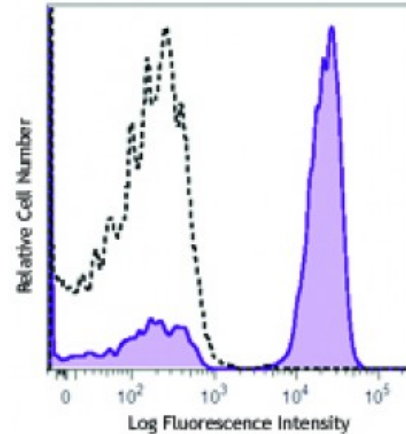
**Isotype:** Mouse IgG2a,  $\kappa$

**Reactivity:** Human

**Preparation:** The antibody was purified by affinity chromatography and conjugated with Alexa Fluor® 700 under optimal conditions.

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

**Concentration:** Lot-specific



Human peripheral blood lymphocytes were stained with CD3 (clone OKT3) Alexa Fluor® 700 (filled histogram) or mouse IgG2a,  $\kappa$  Alexa Fluor® 700 isotype 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 microL per million cells or 5 microL per 100 microL of whole blood. It is recommended that the reagent be titrated for optimal performance for each application.

\* Alexa Fluor® 700 has a maximum emission of 719 nm when it is excited at 633 nm / 635 nm. Prior to using Alexa Fluor® 700 conjugate for flow cytometric analysis, please verify your flow cytometer's capability of exciting and detecting the fluorochrome.

**Application Notes:** The OKT3 monoclonal antibody reacts with an epitope on the epsilon-subunit within the human CD3 complex.

Clone OKT3 can block the binding of clones SK7 and UCHT1.4 The OKT3 antibody is able to induce T cell activation. Additional reported applications (for the relevant formats) include: immunohistochemical staining of acetone-fixed frozen sections and activation of T cells. The LEAF™ purified antibody (Endotoxin <0.1 EU/ $\mu$ g, Azide-Free, 0.2  $\mu$ m filtered) is recommended for functional assays (Cat. No. 317304). For highly sensitive assays, we recommend Ultra-LEAF™ purified antibody (Cat. No. 317326) with a lower endotoxin limit than standard LEAF™ purified antibodies (Endotoxin <0.01 EU/microg).

- Application References:**
- Schlossman S, *et al.* Eds. 1995. Leucocyte Typing V. Oxford University Press. New York.
  - Knapp W. 1989. Leucocyte Typing IV. Oxford University Press New York.
  - Barclay N, *et al.* 1997. The Leucocyte Antigen Facts Book. Academic Press Inc. San Diego.
  - Li B, *et al.* 2005. *Immunology* 116:487.
  - Jeong HY, *et al.* 2008. *J. Leukocyte Biol.* 83:755. [PubMed](#)
  - Alter G, *et al.* 2008. *J. Virol.* 82:9668. [PubMed](#)

7. Manevich-Mendelson E, *et al.* 2009. *Blood* 114:2344. [PubMed](#)

8. Pinto JP, *et al.* 2010. *Immunology*. 130:217. [PubMed](#)

9. Biggs MJ, *et al.* 2011. *J. R. Soc. Interface*. 8:1462. [PubMed](#)

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**Description:** CD3 $\epsilon$  is a 20 kD chain of the CD3/T cell receptor (TCR) complex, which is composed of two CD3 $\epsilon$ , one CD3 $\gamma$ , one CD3 $\delta$ , one CD3 $\zeta$  (CD247), and a T cell receptor ( $\alpha/\beta$  or  $\gamma/\delta$ ) heterodimer. It is found on all mature T lymphocytes, 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.