## **Product Data Sheet**

## PE anti-human CD3

Catalog # / Size: 2186540 / 100 tests

2186535 / 25 tests

Clone: OKT3

**Isotype:** Mouse IgG2a, κ

Reactivity: Human

**Preparation:** The antibody was purified by affinity

chromatography, and conjugated with PE under optimal conditions. The solution is free of unconjugated PE and

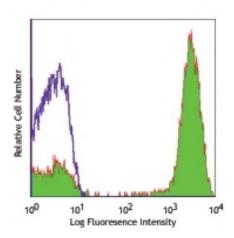
unconjugated antibody.

**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 stained with OKT3 PE

## **Applications:**

**Applications:** Flow Cytometry

Recommended

Usage:

Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis. **Test size products are transitioning from 20 microL to 5 microL per test**. Please check your vial or your CoA to find the suggested use of this reagent per million cells in 100 microL staining volume or per 100 microL of whole blood. It is recommended that the reagent be titrated for optimal performance for each application.

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/µg, Azide-Free, 0.2 µm 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:

- 1. Schlossman S, *et al.* Eds. 1995. Leucocyte Typing V. Oxford University Press. New York.
- 2. Knapp W. 1989. Leucocyte Typing IV. Oxford University Press New York.
- 3. Barclay N, et al. 1997. The Leucocyte Antigen Facts Book. Academic Press Inc. San Diego.
- 4. Li B, et al. 2005. Immunology 116:487.
- 5. Jeong HY, et al. 2008. J. Leuckocyte Biol. 83:755. PubMed
- 6. 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

**Description:** CD3ε 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.