## **Product Data Sheet**

## APC/Cy7 anti-human CD3

Catalog # / Size: 2101590 / 100 tests

2101585 / 25 tests

Clone: HIT3a

**Isotype:** Mouse IgG2a, κ

Reactivity: Human

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

chromatography, and conjugated with APC/Cy7 under optimal conditions. The solution is free of unconjugated APC/Cy7

and unconjugated antibody.

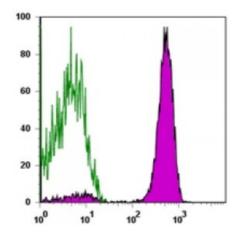
**Formulation:** Phosphate-buffered solution, pH 7.2,

containing 0.09% sodium azide and

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

Workshop Number: V CD03.05

Concentration: Lot-specific



Human peripheral blood lymphocytes stained with HIT3a APC/Cv7

## **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:

Additional reported (for the relevant formats) applications include: immunohistochemical staining of acetone-fixed frozen sections,

immunoprecipitation, and activation of T lymphocytes<sup>4-7</sup>. The HIT3a antibody is able to stimulate T cell activation. The LEAF™ purified antibody (Endotoxin <0.1 EU/ $\mu$ g, Azide-Free, 0.2  $\mu$ m filtered) is recommended for functional assays (Cat. No. 300314). For highly sensitive assays, we recommend Ultra-LEAF™ purified antibody (Cat. No. 300332) 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. Sedelies KA, et al. 2004. J. Biol. Chem. 279:26581. (Activ)

5. Rivollier A, et al. 2004. Blood 104:4029. (Activ)

6. Scharschmidt E, et al. 2004. Mol. Cell Biol. 24:3860. (Activ)

7. Smeltz RB. 2007. *J. Immunol.* 178:4786. (Activ)

8. Ohue Y, et al. 2014. Clin Cancer Res. 20:5052. PubMed 9. Sato K, et al. 2014. PLoS Pathog. 10:1004453. PubMed

10. Luetke-Eversloh M, et al. 2014. PLoS Pathog. 10:1004441. PubMed

11. Liu Y, et al. 2015. J Immunol. 194:5851. PubMed

**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. 137:2501-2507.