

**Pacific Blue™ anti-human CD3**

**Catalog # / Size:** 2102210 / 500 tests  
2102085 / 100 µg

2102090 / 25 µg

2102155 / 100 tests

**Clone:** UCHT1

**Isotype:** Mouse IgG1, κ

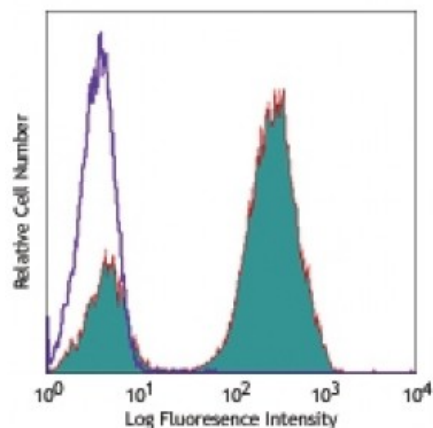
**Reactivity:** Human

**Preparation:** The antibody was purified by affinity chromatography, and conjugated with Pacific Blue™ under optimal conditions. The solution is free of unconjugated Pacific Blue™.

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

**Workshop Number:** III 471

**Concentration:** test size: lot-specific; microg sizes: 0.5 mg/ml



Human peripheral blood lymphocytes stained with UCHT1 Pacific Blue™

**Applications:**

**Applications:** Flow Cytometry

**Recommended Usage:** Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis.

**For test size**, the suggested use of this reagent for immunofluorescent staining is 5 microL per million cells or 5 microL per 100 microL of whole blood.

**For microg sizes**, the suggested use of this reagent for immunofluorescent staining is ≤2.0 microg per 10<sup>6</sup> cells in 100 microL volume or 100 microL of whole blood.

It is recommended that the reagent be titrated for optimal performance for each application.

\* Pacific Blue™ has a maximum emission of 455 nm when it is excited at 405 nm. Prior to using Pacific Blue™ conjugate for flow cytometric analysis, please verify your flow cytometer's capability of exciting and detecting the fluorochrome.

**Application Notes:** Additional reported applications (for the relevant formats) include: immunohistochemical staining of acetone-fixed frozen sections<sup>4,6,7</sup> and formalin-fixed paraffin-embedded sections<sup>11</sup>, immunoprecipitation<sup>1</sup>, activation of T cells<sup>2,3,5</sup>, and Western blotting<sup>9</sup>. The LEAF™ purified antibody (Endotoxin <0.1 EU/µg, Azide-Free, 0.2 µm filtered) is recommended for functional assays (Cat. No. 300414). For highly sensitive assays, we recommend Ultra-LEAF™ purified antibody (Cat. No. 300438) with a lower endotoxin limit than standard LEAF™ purified antibodies (Endotoxin <0.01 EU/microg).

**Application** 1. Salmeron A, *et al.* 1991. *J. Immunol.* 147:3047. (IP)

- References:**
2. Graves J, *et al.* 1991. *J. Immunol.* 146:2102. (Activ)
  3. Lafont V, *et al.* 2000. *J. Biol. Chem.* 275:19282. (Activ)
  4. Ryschich E, *et al.* 2003. *Tissue Antigens* 62:48. (IHC)
  5. Thompson AG, *et al.* 2004. *J. Immunol.* 173:1671. (Activ)
  6. Sakkas LI, *et al.* 1998. *Clin. Diagn. Lab. Immun.* 5:430. (IHC)
  7. Mack CL, *et al.* 2004. *Pediatr. Res.* 56:79. (IHC)
  8. Thakral D, *et al.* 2008. *J. Immunol.* 180:7431. (FC) [PubMed](#)
  9. Van Dongen JJM, *et al.* 1988. *Blood* 71:603. (WB)
  10. Yoshino N, *et al.* 2000. *Exp. Anim. (Tokyo)* 49:97. (FC)
  11. Pollard, K. *et al.* 1987. *J. Histochem. Cytochem.* 35:1329. (IHC)
  12. Luckashenak N, *et al.* 2013. *J. Immunol.* 190:27. [PubMed](#)
  13. Mock U, *et al.* 2015. *Nucleic Acids Res.* 43:5560 [PubMed](#)
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**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, NKT 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.