

**PE/Cyanine5 anti-human CD4**

**Catalog # / Size:** 2387150 / 100 tests  
2387145 / 25 tests

**Clone:** A161A1

**Isotype:** Rat IgG2b, κ

**Immunogen:** Human CD4 T cells

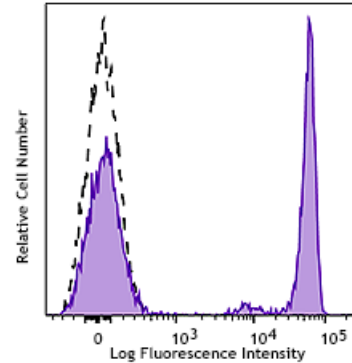
**Reactivity:** Human

**Preparation:** The antibody was purified by affinity chromatography and conjugated with PE/Cyanine5 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 anti-human CD4 (clone A161A1) PE/Cyanine5 (filled histogram) or rat IgG2b, κ PE/Cyanine5 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 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.

**Application Notes:** The epitope recognized by MI15 is found within the ectodomain of the CD138 core protein. It has been reported that MI15 blocks the binding of clone B-B4 but not clone DL-101 by flow cytometric analysis. Clones DL-101 and MI15 exhibit differential staining patterns on *in vitro* generated plasma cells and some CD138<sup>+</sup> cell lines.<sup>4</sup>

Additional reported applications for the relevant formats include: immunofluorescent staining<sup>1</sup>, Western blotting<sup>2</sup>, and immunohistochemical staining of formalin-fixed paraffin-embedded frozen tissue sections<sup>3</sup>.

- Application References:**
1. Costes V, *et al.* 1999. *Hum. Pathol.* 30:1405. (IF)
  2. Gattei V, *et al.* 1999. *Br. J. Haematol.* 104:152. (WB)
  3. Bologna-Molina R, *et al.* 2008. *Oral Oncol.* 44:805. (IHC)
  4. Itoua MR, *et al.* 2014. *Biomed. Res. Int.* 2014:536482.

**Description:** CD4, also known as T4/Leu-3, is a 55 kD single-chain type I transmembrane glycoprotein and member of the immunoglobulin superfamily. It is expressed on most thymocytes, helper T cells, type II NKT cells, and monocytes/macrophages. CD4 is part of the TCR/CD3 complex, binds to β2 domain from the MHC class II molecule, and participates in TCR signal transduction. CD4 is the receptor of IL-16 and is a coreceptor for the human immunodeficiency virus (HIV) and human herpes virus 7 (HHV-7).

- Antigen**
- References:**
1. Zhu J, *et al.* 2010. *Annu Rev. Immunol.* 28:445.
  2. Vignali DA. 2010. *J. Immunol.* 184:5933.
  3. Zhou L, *et al.* 2009. *Immunity* 30:646.
  4. Singer A, *et al.* 2008. *Nat. Rev. Immunol.* 8:788.
  5. Zhu J and Paul WE. 2008. *Blood* 112:1557.