

**PE/Cy7 anti-human CD39**

**Catalog # / Size:** 2241055 / 25 tests  
2241060 / 100 tests

**Clone:** A1

**Isotype:** Mouse IgG1, κ

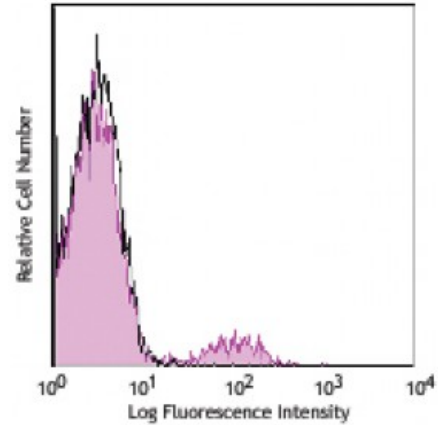
**Immunogen:** PHA activated human lymphocytes

**Reactivity:** Human

**Preparation:** The antibody was purified by affinity chromatography, and conjugated with PE/Cy7 under optimal conditions. The solution is free of unconjugated PE/Cy7 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 A1 PE/Cy7

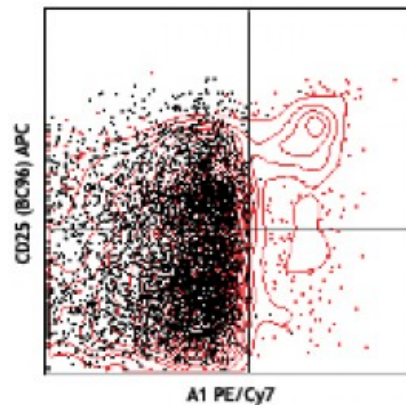
**Applications:**

**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 A1 antibody binds to the human CD39 cell surface antigen and has been shown to block MHC independent target cell recognition by hapten-specific CTL. Additional reported applications (for the relevant formats) include: *in vitro* CD39 blockade<sup>3</sup>, immunofluorescence<sup>4</sup>, and immunohistochemistry<sup>6</sup>. The LEAF™ purified antibody (Endotoxin <0.1 EU/microg, Azide-Free, 0.2 μm filtered) is recommended for blocking assays ([contact our custom solutions team](#)).

- Application References:**
1. Aversa GG, *et al.* 1988. *Transplant. P.* 20:4952.
  2. Aversa GG, *et al.* 1989. *Transplant. P.* 21:34950.
  3. Borsellino G, *et al.* 2007. *Blood.* 110:1225. (Block)
  4. Stockl J, *et al.* 2001. *J. Immunol.* 167:2724. (IF)
  5. Sestak K, *et al.* 2007. *Vet. Immunol. Immunopathol.* 119:21.
  6. Lyck L, *et al.* 2008. *J. Histochem. Cytochem.* 56:201. (IHC)



Human peripheral blood CD4+ lymphocytes stained with CD25 (BC96) APC and A1 PE/Cy7 (red) or mIgG1,κ PE/Cy7 isotype control (black)

**Description:** Human CD39 is an integral membrane protein with two transmembrane domains. It exists as a homotetramer. Expression of CD39 is found on activated lymphocytes, a subset of T cells and B cells, and dendritic cells with weak staining on monocytes and granulocytes. CD39 and CD73 have been found on regulatory T cells, specifically the effector/memory like T cells. CD39 can hydrolyze both nucleoside triphosphates and diphosphates. CD39 is the dominant ecto nucleotidase of vascular and placental trophoblastic tissues and appears to modulate the functional expression of type 2 purinergic (P2) G protein coupled receptors (GPCRs). CD39 has intrinsic ecto-ATPase activity. Expression of CD39 is induced on T cells and increased on B cells as a late activation antigen.