

**Alexa Fluor® 488 anti-human CD45**

**Catalog # / Size:** 2442675 / 25 tests  
2442680 / 100 tests

**Clone:** 2D1

**Isotype:** Mouse IgG1, κ

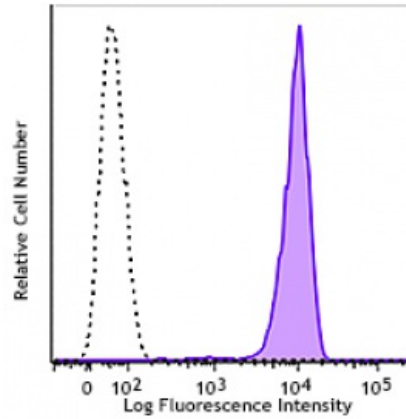
**Immunogen:** Human PBMC

**Reactivity:** Human

**Preparation:** The antibody was purified by affinity chromatography and conjugated with Alexa Fluor® 488 under optimal conditions. The solution is free of unconjugated Alexa Fluor® 488.

**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 were stained with CD45 (clone 2D1) Alexa Fluor® 488 (filled histogram) or Mouse IgG1 κ Alexa Fluor® 488 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 or 5 µl per 100 µl of whole blood. It is recommended that the reagent be titrated for optimal performance for each application.

\* Alexa Fluor® 488 has a maximum emission of 519 nm when it is excited at 488 nm.

**Application Notes:** It was found that the HI30 clone and the 2D1 clone can cross block each other's binding.

**Application References:** 1. Thomas M. 1989. *Annu. Rev. Immunol.* 7:339.  
2. Trowbridge I, *et al.* 1994. *Annu. Rev. Immunol.* 12:85.

**Description:** CD45 is a 180 - 240 kD single chain type I membrane glycoprotein also known as leukocyte common antigen (LCA) and T200. It is a tyrosine phosphatase expressed on the plasma membrane of all hematopoietic cells, except erythrocytes or platelets. CD45 is a signaling molecule that regulates a variety of cellular processes including cell growth, differentiation, cell cycle, and oncogenic transformation. CD45 plays a critical role in T and B cell antigen receptor-mediated activation by dephosphorylating substrates including p56Lck, p59Fyn, and other Src family kinases. CD45 non-covalently associates with lymphocyte phosphatase-associated phosphoprotein (LPAP) on T and B lymphocytes. CD45 has been reported to bind galectin-1 and to be associated with several other cell surface antigens including CD1, CD2, CD3, and CD4.

**Antigen** 1. Thomas M. 1989. *Annu. Rev. Immunol.* 7:339.

**References:** 2. Trowbridge I, *et al.* 1994. *Annu. Rev. Immunol.* 12:85.