SONY

Product Data Sheet

Alexa Fluor® 700 anti-human CD45

Catalog # / Size: 2442570 / 100 tests
2442565 / 25 tests

Clone: 2D1

Isotype: Mouse IgG1, κ

Immunogen: Human PBMC

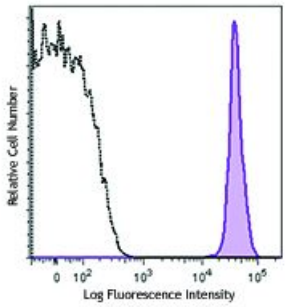
Reactivity: Human

Preparation: The antibody was purified by affinity chromatography and conjugated with Alexa Fluor® 700 under optimal conditions.

Formulation: Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and BSA (origin USA).

Workshop Number: IV B201

Concentration: Lot-specific



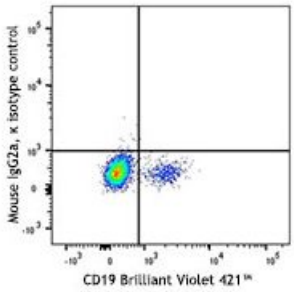
Human peripheral blood lymphocytes were stained with CD45 (clone 2D1) Alexa Fluor® 700 (filled histogram) or mouse IgG1, κAlexa Fluor® 700 isotype control (open histogram).

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® 700 has a maximum emission of 719 nm when it is excited at 633 nm / 635 nm. Prior to using Alexa Fluor® 700 conjugate for flow cytometric analysis, please verify your flow cytometer's capability of exciting and detecting the fluorochrome.



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

Application References:

1. Bradstock KF, *et al.* 1980. *J. Natl. Cancer Inst.* 65:33.
2. Csiba A, *et al.* 1984. *Br. J. Cancer* 50:699.
3. Tchilian EZ, *et al.* 2001. *J. Immunol.* 166:1308.
4. Lee MS, *et al.* 2004. *Int. Immunol.* 16:1109.

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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 References:

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

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