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# Product Data Sheet

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## PerCP/Cy5.5 anti-human CD45

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|--------------------------|---|--|
| <b>Catalog # / Size:</b> | 2120135 / 25 tests<br>2120140 / 100 tests   | □ Human peripheral blood lymphocytes stained with HI30 PerCP/Cy5.5 |
| <b>Clone:</b>            | HI30  |  |
| <b>Isotype:</b>          | Mouse IgG1, κ   |  |
| <b>Reactivity:</b>       | Human   |  |
| <b>Preparation:</b>      | The antibody was purified by affinity chromatography, and conjugated with PerCP/Cyanine5.5 under optimal conditions. The solution is free of unconjugated PerCP/Cyanine5.5 and unconjugated antibody. |  |
| <b>Formulation:</b>      | Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and 0.2% (w/v) BSA (origin USA).   |  |
| <b>Workshop Number:</b>  | IV N816   |  |
| <b>Concentration:</b>    | Lot-specific  |  |

## 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.

\* PerCP/Cyanine5.5 has a maximum absorption of 482 nm and a maximum emission of 690 nm.

**Application Notes:** Additional reported applications (for the relevant formats) include: immunohistochemical staining of acetone-fixed frozen tissue sections and formalin-fixed paraffin-embedded tissue sections<sup>9</sup>, inhibition of CD45 functions<sup>4</sup>, immunofluorescence<sup>11</sup>, and Western blotting<sup>3</sup>.

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 and 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.