TECHNICAL DATA SHEET

CyFlow™ CD45 Purified
Anti-Hu; Clone 2D1

REF **AA542037**

For Research Use Only.

Not for use in diagnostic or therapeutic procedures.

Specifications

Antigen	CD45
Alternative Names	LCA, T200, B220
Clone	2D1
Clonality	monoclonal
Format	Purified
Host / Isotype	Mouse / IgG1
Species Reactivity	Human
Negative Species Reactivity	—
Quantity [Concentration]	0.1 mg [1 mg/ml]
Immunogen	Human peripheral blood mononuclear cells (PBMC)

Specificity

The mouse monoclonal antibody 2D1 recognizes all alternative forms of human CD45 antigen, a 180-220 kDa single chain type I transmembrane protein expressed at high level on all cells of hematopoietic origin, except from erythrocytes and platelets.

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Application

Based on published sources, this antibody is suitable for the following applications:

- Flow cytometry

Storage Buffer

The reagent is provided in phosphate buffered saline (PBS) solution, pH ≈7.4, containing 0.1% (w/v) sodium azide.

Storage and Stability

Storage	Avoid prolonged exposure to light. Store in the dark at 2-8°C. Do not freeze.
Stability	Do not use after expiration date stamped on vial label.

Background Information

CD45 (LCA; leukocyte common antigen) is a receptor-type protein tyrosine phosphatase ubiquitously expressed in all nucleated hematopoietic cells, comprising approximately 10% of all surface proteins in lymphocytes. CD45 glycoprotein is crucial in lymphocyte development and antigen signaling, serving as an important regulator of Src-family kinases. CD45 protein exists as multiple isoforms as a result of alternative splicing; these isoforms differ in their extracellular domains, whereas they share identical transmembrane and cytoplasmic domains. These isoforms differ in their ability to translocate into the glycosphingolipid-enriched membrane domains and their expression depends on cell type and physiological state of the cell. Besides the role in immunoreceptor signaling, CD45 is important in promoting cell survival by modulating integrin-mediated signal transduction pathway and is also involved in DNA fragmentation during apoptosis.

References

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The Safety Data Sheet for this product is available at www.sysmex-partec.com/services.

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