

1A-223-T025

## Monoclonal Antibody to CD45RA Allophycocyanin (APC) conjugated (25 tests)

Clone: MEM-56

**Isotype:** Mouse IgG2b

Specificity: The antibody MEM-56 reacts with CD45RA, a 205-220 kDa single chain type I

glycoprotein, variant of CD45 (CD45RA isoform). CD45RA is expressed on most of B lymphocytes, resting and native T lymphocytes, medullar thymocytes and

monocytes.

HLDA IV; WS Code NL 907

Regulatory Status: RUO

**Immunogen:** Human thymocytes and T lymphocytes.

Species Reactivity: Human

**Preparation:** The purified antibody is conjugated with cross-linked Allophycocyanin (APC) under

optimum conditions. The conjugate is purified by size-exclusion chromatography

and adjusted for direct use. No reconstitution is necessary.

**Storage Buffer:** The reagent is provided in stabilizing phosphate buffered saline (PBS) solution

containing 15mM sodium azide.

**Storage / Stability:** Store in the dark at 2-8°C. Do not freeze. Avoid prolonged exposure to light. Do not

use after expiration date stamped on vial label.

Usage: The reagent is designed for Flow Cytometry analysis of human blood cells using

10 µl reagent / 100 µl of whole blood or 10<sup>6</sup> cells in a suspension.

The content of a vial (0.25 ml) is sufficient for 25 tests.

Expiration: See vial label

Lot Number: See vial label

Background: CD45RA is a high molecular weight isoform of a receptor-type protein tyrosine

phosphatase, CD45 glycoprotein. CD45 is crucial in lymphocyte development and antigen signaling, serving as an important regulator of Src-family kinases, promotes cell survival by modulating integrin-mediated signal transduction pathway and is also involved in DNA fragmentation during apoptosis. CD45 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. CD45RA is expressed e.g. on

naïve T cells and normal plasma cells.



## PRODUCT DATA SHEET

## References:

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\*Cosenza-Nashat MA, Kim MO, Zhao ML, Suh HS, Lee SC: CD45 isoform expression in microglia and inflammatory cells in HIV-1 encephalitis. Brain Pathol. 2006 Oct;16(4):256-65.

\*Dawes R, Petrova S, Liu Z, Wraith D, Beverley PC, Tchilian EZ. Combinations of CD45 isoforms are crucial for immune function and disease. J Immunol. 2006 Mar 15;176(6):3417-25.

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\*Bazil V, Stefanova I, Hilgert I, Kristofova H, Vanek S, Bukovsky A, Horejsi V.: Monoclonal antibodies against human leucocyte antigens. III. Antibodies against CD45R, CD6, CD44 and two newly described broadly expressed glycoproteins MEM-53 and MEM-102. Folia Biol (Praha). 1989;35(5):289-97.

\*Leukocyte Typing IV., Knapp W. et al. (Eds.), Oxford University Press (1989).

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