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Mouse Anti-CD45RA Monoclonal Antibody

CLX49AP
CLX49B
CLX49F

CLX49PE
CLX49PCP
CLX49APC

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

Immunogen: Human thymocytes and T lymphocytes.

Species Reactivity: Human

Application: Flow Cytometry, Immunoprecipitation, Western Blotting, Immunohistochemistry (paraffin sections) (No pre-treatment of tissue sections is essential.) and Mass Cytometry.

Conjugate Preparation:

The purified antibody is conjugated with Biotin-LC-NHS, Fluorescein isothiocyanate (FITC), R-Phycoerythrin (PE), Peridinin-chlorophyll-protein complex (PerCP) or cross-linked Allophycocyanin (APC) under optimum conditions. The conjugates are purified by size-exclusion chromatography and adjusted for direct use (FITC, PE, APC, PerCP). No reconstitution is necessary.

Presentation:

Purified: 0.1 mg (1 mg/mL) purified IgG buffered in PBS with 15 mM sodium azide, approx. pH 7.4. (Purified by protein-A affinity chromatography; purity > 95% by SDS-PAGE).

Biotin: 0.1 mg (1 mg/mL) of Biotin conjugated IgG buffered in tris buffered saline (TBS) with 15 mM sodium azide, approx. pH 8.0.

FITC: 2 mL of FITC conjugated IgG buffered in stabilizing phosphate buffered saline (PBS) solution containing 15mM sodium azide. Sufficient for 100 tests.

PE: 2 mL of PE conjugated IgG buffered in stabilizing phosphate buffered saline (PBS) solution containing 15mM sodium azide. Sufficient for 100 tests.

PerCP: 1 mL of APC conjugated IgG buffered in stabilizing phosphate buffered saline (PBS) solution containing 15mM sodium azide. Sufficient for 100 tests.

APC: 1 mL of APC conjugated IgG buffered in stabilizing phosphate buffered saline (PBS) solution containing 15mM sodium azide. Sufficient for 100 tests.

Continued Overleaf.....

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Storage / Stability:

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

Usage:

Recommended dilutions for Flow Cytometry analysis of human blood cells:

Purified and Azide free: 1-4 µg/ml

Biotin: 1:120 dilution

FITC: 20 µl reagent / 100 µl of whole blood or 10⁶ cells in a suspension.

PE: 20 µl reagent / 100 µl of whole blood or 10⁶ cells in a suspension.

PerCP: 10 µl reagent / 100 µl of whole blood or 10⁶ cells in a suspension.

APC: 10 µl reagent / 100 µl of whole blood or 10⁶ cells in a suspension.

***Optimal working concentrations should be determined by the investigator.**

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.

References:

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