EXBIO Antibodies

PRODUCT DATA SHEET

1A-222-T100

# Monoclonal Antibody to CD45 Allophycocyanin (APC) conjugated (100 tests)

**Clone:** MEM-28

**Isotype:** Mouse IgG1

**Specificity:** The antibody MEM-28 reacts with all alternative forms of human CD45 antigen (Leukocyte Common Antigen), a 180-220 kDa single chain type I transmembrane protein expressed at high level on all cells of hematopoietic origin, except erythrocytes and platelets.
HLDA III; WS Code NL 833a

**Regulatory Status:** RUO

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

**Species Reactivity:** Human

**Negative Species:** Equine (Horse)

**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 2-8ºC. 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 $10^6$ cells in a suspension.
The content of a vial (1 ml) is sufficient for 100 tests.

**Expiration:** See vial label

**Lot Number:** See vial label

**Background:** 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.

**For laboratory research only, not for drug, diagnostic or other use.**

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