



11-222-M001

## Monoclonal Antibody to CD45 Purified Antibody (1.0 mg)

<b>Clone:</b>	MEM-28
<b>Isotype:</b>	Mouse IgG1
<b>Specificity:</b>	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
<b>Regulatory Status:</b>	RUO
<b>Immunogen:</b>	Human thymocytes and T lymphocytes.
<b>Species Reactivity:</b>	Human
<b>Negative Species:</b>	Equine (Horse)
<b>Application:</b>	Flow Cytometry Recommended dilution: 1 µg/ml Immunoprecipitation Western Blotting Recommended dilution: 1 µg/ml Positive control: JURKAT human leukemia T-cell lysate Kg-1a human leukemia cell lysate Sample preparation: buffer with laurylmaltoside, 2 x non-reducing SDS Application note: Non-reducing conditions. SDS-PAGE (6% separating gel). Immunohistochemistry (paraffin sections) No pre-treatment of tissue sections is essential. Immunocytochemistry Recommended dilution: 10 µg/ml Application note: paraformaldehyde fixation can be used
<b>Purity:</b>	> 95% (by SDS-PAGE)
<b>Purification:</b>	Purified by protein-A affinity chromatography
<b>Concentration:</b>	1 mg/ml
<b>Storage Buffer:</b>	Phosphate buffered saline (PBS) with 15 mM sodium azide, approx. pH 7.4
<b>Storage / Stability:</b>	Store at 2-8°C. Do not freeze. Do not use after expiration date stamped on vial label.
<b>Expiration:</b>	See vial label
<b>Lot Number:</b>	See vial label

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**Antibodies****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.

**References:**

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