

Product datasheet for **AM26024RP-N**

CD45 / LCA Rat Monoclonal Antibody [Clone ID: EM-05]

Product data:

| | |
|-----------------------|--|
| Product Type: | Primary Antibodies |
| Clone Name: | EM-05 |
| Applications: | FC |
| Recommended Dilution: | Flow cytometry: 4 µg/ml. |
| Reactivity: | Mouse |
| Host: | Rat |
| Isotype: | IgG |
| Clonality: | Monoclonal |
| Immunogen: | Murine peripheral blood leukocytes |
| Specificity: | This antibody reacts with mouse CD45 antigen (Leukocyte Common Antigen), a single chain type I transmembrane protein expressed at high level on cells of hematopoietic origin, except erythrocytes and platelets. |
| Formulation: | Phosphate buffered saline (PBS) with 15 mM sodium azide, approx. pH 7.4 Label: PE State: Liquid purified Ig fraction Label: Conjugated with R-Phycoerythrin under optimum conditions. The conjugate is purified by size-exclusion chromatography. |
| Concentration: | lot specific |
| Conjugation: | PE |
| Storage: | Store the antibody at 2 - 8 °C. DO NOT FREEZE! This product is photosensitive and should be protected from light. |
| Stability: | Shelf life: one year from despatch. |
| Gene Name: | protein tyrosine phosphatase, receptor type, C |
| Database Link: | Entrez Gene 19264 Mouse P06800 |



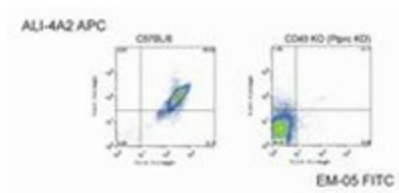
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Background:

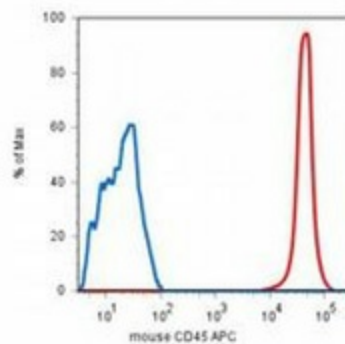
CD45 (LCA, leukocyte common antigen) is a receptor-type protein tyrosine phosphatase ubiquitously expressed in all nucleated hematopoietic cells, comprising approximately 10% of all surface proteins in lymphocytes. CD45 glycoprotein is crucial in lymphocyte development and antigen signaling, serving 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.

Synonyms:

PTPRC, Leukocyte common antigen, L-CA, T200

Product images:

Surface staining of C57BL/6 cells and CD45 knock-out cells with anti-CD45 antibodies EM-05 and ALI-4A2.



Surface staining of mouse blood lymphocytes with anti-CD45 antibody EM-05-APC.