

Product datasheet for **AM26024PU-N**

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

Product data:

Product Type:	Primary Antibodies
Clone Name:	EM-05
Applications:	FC, IF, IP, WB
Recommended Dilution:	Flow cytometry: 2 µg/ml. <i>Positive control:</i> murine peripheral blood leukocytes. Immunoprecipitation. Western blot. Immunocytochemistry.
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 State: Purified State: Liquid Ig fraction
Concentration:	lot specific
Purification:	Purified by protein A (> 95% pure by SDS-PAGE)
Conjugation:	Unconjugated
Storage:	Store undiluted at 2-8°C. DO NOT FREEZE!
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

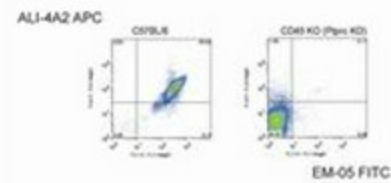
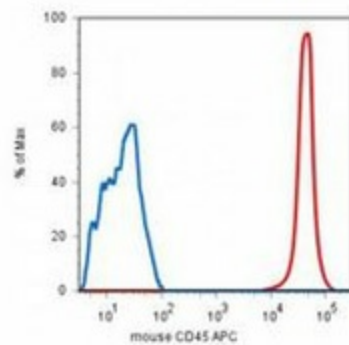
Product images:

Fig. 1.

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.