

Product datasheet for **SM032PT**

CD45 / LCA Rat Monoclonal Antibody [Clone ID: YW62.3]

Product data:

Product Type:	Primary Antibodies
Clone Name:	YW62.3
Applications:	FC, IHC, IP
Recommended Dilution:	Flow cytometry: Use 10 µl of 1/100-1/200 diluted antibody to label 10e6 cells in 100 µl. Immunoprecipitation. Immunohistochemistry on Frozen Sections.
Reactivity:	Mouse
Host:	Rat
Isotype:	IgG2b
Clonality:	Monoclonal
Immunogen:	Mouse spleen cells. Spleen cells from immunised DA rats were fused with cells of the rat Y3/Ag1.2.3 myeloma cell line.
Specificity:	This antibody recognises the CD45 cell surface antigen, a 180-220kD glycoprotein expressed by all leucocytes. Some reactivity with human tissue has been observed.
Formulation:	PBS, pH 7.4 containing 0.09% Sodium Azide as preservative. State: Purified State: Liquid purified IgG fraction.
Concentration:	lot specific
Purification:	Affinity Chromatography on Protein G
Conjugation:	Unconjugated
Storage:	Store the antibody undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer. Avoid repeated freezing and thawing.
Stability:	Shelf life: one year from despatch.
Gene Name:	protein tyrosine phosphatase, receptor type, C
Database Link:	Entrez Gene 19264 Mouse P06800



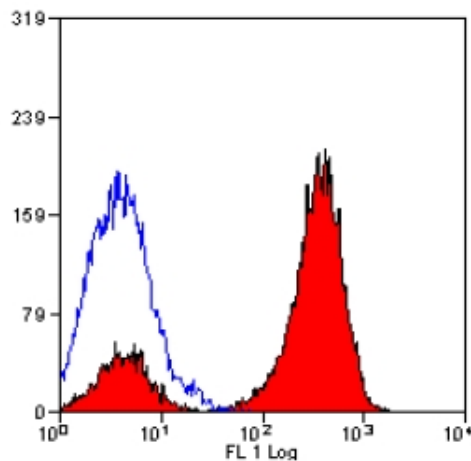
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Background:

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:

Staining of mouse spleen cells with Rat Anti Mouse CD45 (Ly-5).