

## Product datasheet for **SM032FS**

### CD45 / LCA Rat Monoclonal Antibody [Clone ID: YW 62.3]

#### Product data:

Product Type:	Primary Antibodies
Clone Name:	YW 62.3
Applications:	FC
Recommended Dilution:	Flow Cytometry: Use 10 µl of neat antibody to label 10e6 cells. The Fc region of monoclonal antibodies may bind non-specifically to cells expressing low affinity Fc receptors.
Reactivity:	Mouse
Host:	Rat
Isotype:	IgG2b
Clonality:	Monoclonal
Immunogen:	Mouse spleen cells. Spleen cells from immunised DA rat were fused with cells of the Y3/Ag1.2.3 myeloma cell line.
Specificity:	This antibody recognises the CD45 cell surface antigen, a 180-220kD glycoprotein expressed by all leucocytes.
Formulation:	PBS containing 0.09% Sodium Azide as preservative and 1% BSA as stabilizer. Label: FITC State: Liquid purified IgG fraction. Label: Fluorescein Isothiocyanate Isomer 1
Concentration:	lot specific
Purification:	Affinity Chromatography on Protein G.
Conjugation:	FITC
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. 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:	<a href="#">Entrez Gene 19264 Mouse P06800</a>



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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