

## Product datasheet for **SM3025B**

### CD45 (PTPRC) Mouse Monoclonal Antibody [Clone ID: MEM-28]

#### Product data:

Product Type:	Primary Antibodies
Clone Name:	MEM-28
Applications:	FC
Recommended Dilution:	<b>Immunofluorescence analysis by Flow Cytometry:</b> 1: 500 as starting point.
Reactivity:	Human
Host:	Mouse
Isotype:	IgG1
Clonality:	Monoclonal
Immunogen:	Human thymocytes and T lymphocytes
Specificity:	The antibody 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.
Formulation:	Phosphate buffered saline (PBS) with 15 mM sodium azide, approx. pH 7.4 Label: Biotin State: Liquid Ig fraction Label: Conjugated with Biotin-LC-NHS under optimum conditions. The reagent is free of unconjugated biotin.
Concentration:	lot specific
Conjugation:	Biotin
Storage:	Store the antibody 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:	<a href="#">Entrez Gene 5788 Human P08575</a>



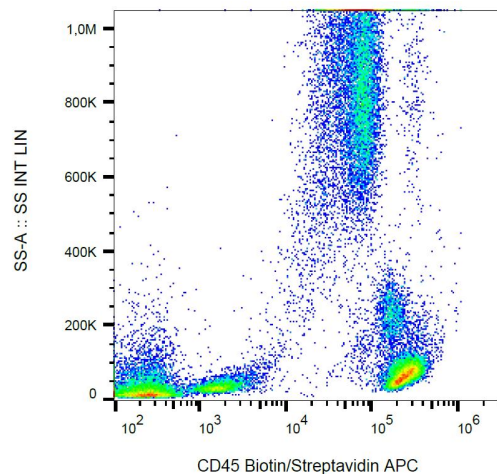
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**Background:**

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

**Product images:**

Surface staining of human peripheral blood cells with anti-human CD45 (MEM-28) biotin.