

## Product datasheet for **SM3025F**

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

#### Product data:

Product Type:	Primary Antibodies
Clone Name:	MEM-28
Applications:	FC
Recommended Dilution:	<b>Flow Cytometry analysis</b> of human blood cells using 20 µl reagent/100 µl whole blood or 10 <sup>6</sup> cells in a suspension. The content of a vial (2 ml) is sufficient for 100 tests.
Reactivity:	Human
Host:	Mouse
Isotype:	IgG1
Clonality:	Monoclonal
Immunogen:	Human thymocytes and T lymphocytes
Specificity:	The antibody reacts with all alternative forms of CD45 antigen (Leucocyte 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) solution containing 15mM sodium azide Label: FITC State: Liquid purified Ig fraction Label: Conjugated with Fluorescein isothiocyanate (FITC) under optimum conditions. The reagent is free of unconjugated FITC and adjusted for direct use.
Conjugation:	FITC
Storage:	Store the antibody undiluted at 2-8°C. <b>DO NOT FREEZE!</b> 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 5788 Human P08575</a>



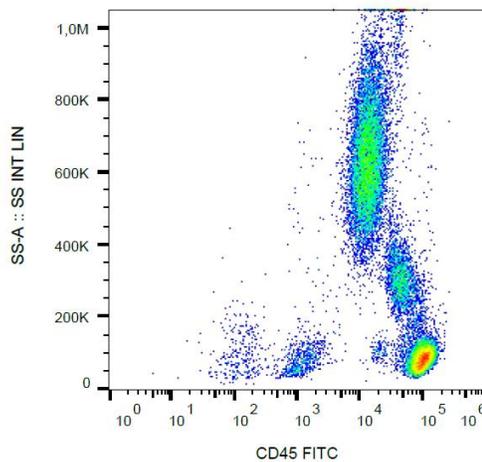
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**Background:**

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) FITC.