

# CD45RA monoclonal antibody, clone MEM-56 (Biotin)

Catalog # MAB4625

Size 100 ug

## Specification

|                      |                                                                                                                                                                                                                                        |
|----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Product Description  | Mouse monoclonal antibody raised against native CD45RA.                                                                                                                                                                                |
| Immunogen            | Native purified CD45RA from human thymocytes and T lymphocytes.                                                                                                                                                                        |
| Host                 | Mouse                                                                                                                                                                                                                                  |
| Theoretical MW (kDa) | 205-220                                                                                                                                                                                                                                |
| Reactivity           | Human                                                                                                                                                                                                                                  |
| Specificity          | This antibody reacts with CD45RA, a 205-220 KDa single chain type I glycoprotein, variant of CD45 (CD45RA isoform). CD45RA is expressed on most of B lymphocytes, resting and native T lymphocytes, medullar thymocytes and monocytes. |
| Form                 | Liquid                                                                                                                                                                                                                                 |
| Conjugation          | Biotin                                                                                                                                                                                                                                 |
| Isotype              | IgG2b                                                                                                                                                                                                                                  |
| Recommend Usage      | Flow Cytometry (1:120)<br>The optimal working dilution should be determined by the end user.                                                                                                                                           |
| Storage Buffer       | In PBS, pH 7.4 (0.09% sodium azide)                                                                                                                                                                                                    |
| Storage Instruction  | Store at 4°C. Do not freeze.<br>Aliquot to avoid repeated freezing and thawing.                                                                                                                                                        |
| Note                 | This product contains sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.                                                                                                                 |

## Applications

- Flow Cytometry

## Gene Info — PTPRC

**Entrez GeneID** [5788](#)

**Gene Name** PTPRC

**Gene Alias** B220, CD45, CD45R, GP180, LCA, LY5, T200

**Gene Description** protein tyrosine phosphatase, receptor type, C

**Omim ID** [126200](#) [151460](#) [609532](#)

**Gene Ontology** [Hyperlink](#)

**Gene Summary** The protein encoded by this gene is a member of the protein tyrosine phosphatase (PTP) family. PTPs are known to be signaling molecules that regulate a variety of cellular processes including cell growth, differentiation, mitotic cycle, and oncogenic transformation. This PTP contains an extra cellular domain, a single transmembrane segment and two tandem intracytoplasmic catalytic domains, and thus belongs to receptor type PTP. This gene is specifically expressed in hematopoietic cells. This PTP has been shown to be an essential regulator of T- and B-cell antigen receptor signaling. It functions through either direct interaction with components of the antigen receptor complexes, or by activating various Src family kinases required for the antigen receptor signaling. This PTP also suppresses JAK kinases, and thus functions as a regulator of cytokine receptor signaling. Four alternatively spliced transcripts variants of this gene, which encode distinct isoforms, have been reported. [provided by RefSeq]

**Other Designations** CD45 antigen|T200 glycoprotein|T200 leukocyte common antigen|glycoprotein|leukocyte-common antigen|protein tyrosine phosphatase, receptor type, c polypeptide

## Publication Reference

- [Involvement of CD45 in DNA fragmentation in apoptosis induced by mitochondrial perturbing agents.](#)

Desharnais P, Dupere-Minier G, Hamelin C, Devine P, Bernier J.

Apoptosis 2008 Feb; 13(2):197.

- [Collagen-mediated survival signaling is modulated by CD45 in Jurkat T cells.](#)

Bijian K, Zhang L, Shen SH.

Molecular Immunology 2007 May; 44(15):3682.

- [Monoclonal antibodies against human leucocyte antigens. III. Antibodies against CD45R, CD6, CD44 and two newly described broadly expressed glycoproteins MEM-53 and MEM-102.](#)

Bazil V, Stefanová I, Hilgert I, Kristofová H, Vaněk S, Bukovský A, Horejsí V.

Folia Biol (Praha) 1989 Jan; 35(5):289.

## Pathway

- [Cell adhesion molecules \(CAMs\)](#)
- [Fc gamma R-mediated phagocytosis](#)
- [Primary immunodeficiency](#)
- [T cell receptor signaling pathway](#)

## Disease

- [Arthritis](#)
- [Ascariasis](#)
- [Autoimmune Diseases](#)
- [Cardiomyopathy](#)
- [Diabetes Mellitus](#)
- [Genetic Predisposition to Disease](#)
- [Graves Disease](#)
- [Hashimoto Disease](#)
- [Hepatitis](#)
- [Hepatitis B](#)
- [Hepatitis C](#)
- [HIV Infections](#)
- [Inflammatory Bowel Diseases](#)
- [Lupus Erythematosus](#)

- [Lymphopenia](#)
- [Multiple Sclerosis](#)
- [Paraparesis](#)
- [Scleroderma](#)
- [Severe combined immunodeficiency](#)
- [Thyroiditis](#)