

PTPRC monoclonal antibody, clone MEM-28 (PE)

Catalog # MAB4586

Size 100 Reactions

Specification

Product Description	Mouse monoclonal antibody raised against native PTPRC.
Immunogen	Native purified PTPRC from human thymocytes and T lymphocytes.
Host	Mouse
Theoretical MW (kDa)	180-220
Reactivity	Human
Specificity	This 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 hem atopoietic origin, except erythrocytes and platelets.
Form	Liquid
Conjugation	PE
Purification	Protein A purification
Isotype	IgG1
Recommend Usage	Flow Cytometry (20 ul in human blood cells 100 ul in whole blood or 10 ⁶ cells in a suspension) Immunofluorescence (Circulating Tumor Cell) (1:100) The optimal working dilution should be determined by the end user.
Storage Buffer	In stabilizing PBS, pH7.4 (0.09% sodium azide).
Storage Instruction	Store in the dark at 4°C. Do not freeze. Avoid prolonged exposure to light. 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
- Immunofluorescence (Circulating Tumor Cell)

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

- [Immunospecific targeting of CD45 expressing lymphoid cells: towards improved detection agents of the sentinel lymph node.](#)

Tianqing Liu, Aidan Cousins, Chia-Chi Chien, Ivan Kempson, Sarah Thompson, Yeukuang Hwu, Benjamin Thierry.
Cancer Letters 2013 Jan; 328(2):271.

Application: Func, Mouse, Mouse lymph node, Nanoparticles, Raw 264.7 cells

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

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

Apoptosis 2007 Dec; 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. II. Antibodies against CD45 \(T200\), CD3 \(T3\), CD43, CD10 \(CALLA\), transferrin receptor \(T9\), a novel broadly expressed 18-kDa antigen \(MEM-43\) and a novel antigen of restricted expression \(MEM-74\).](#)

Horejsí V, Angelisová P, Bazil V, Kristofová H, Stoyanov S, Stefanová I, Hausner P, Vosecký M, Hilgert I.

Folia Biol (Praha) 1988 Jan; 34(1):23.

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](#)