

PTPRC monoclonal antibody, clone UCHL1 (APC)

Catalog # MAB4434

Size 100 Reactions

Specification

Product Description	Mouse monoclonal antibody raised against native PTPRC.
Immunogen	Native purified PTPRC from human IL-2 dependent T cells.
Host	Mouse
Theoretical MW (kDa)	180
Reactivity	Human
Specificity	This antibody recognizes CD45R0, a 180 KDa low molecular weight isoform of the leukocyte common antigen (LCA). The antigen is expressed on a subset of memory/activated T cells and on cortical thymocytes.
Form	Liquid
Conjugation	APC
Isotype	IgG2a
Recommend Usage	Flow Cytometry (10 ul in human blood cells 100 ul in whole blood or 10 ⁶ cells in a suspension) The optimal working dilution should be determined by the end user.
Storage Buffer	In PBS (0.2% BSA, 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

- Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections)

- Immunohistochemistry (Frozen sections)
- Immunoprecipitation
- 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

- [Limiting dilution analysis of proliferative responses in human lymphocyte populations defined by the monoclonal antibody UCHL1: implications for differential CD45 expression in T cell memory formation.](#)

Merkenschlager M, Terry L, Edwards R, Beverley PC.

European Journal of Immunology 1988 Nov; 18(11):1653.

Application: Flow Cyt, Human, Peripheral blood mononuclear cells

- [The monoclonal antibody, UCHL1, recognizes a 180,000 MW component of the human leucocyte-common antigen, CD45.](#)

Terry LA, Brown MH, Beverley PC.

Immunology 1988 Jun; 64(2):331.

Application: Flow Cyt, IP, Human, MOLT-4 cells

- [Phenotypic diversity of the CD45 antigen and its relationship to function.](#)

Beverley PC, Merckenschlager M, Terry L.

Immunology. Supplement 1988 Jan; 1:3.

Application: Flow Cyt, Human, Mouse, Leucocytes

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](#)