

## Datasheet

### PTPRC monoclonal antibody, clone UCHL1 (APC)

**Catalog Number:** MAB4434

**Regulatory Status:** For research use only (RUO)

**Product Description:** Mouse monoclonal antibody raised against native PTPRC.

**Clone Name:** UCHL1

**Immunogen:** Native purified PTPRC from human IL-2 dependent T cells.

**Host:** Mouse

**Theoretical MW (kDa):** 180

**Reactivity:** Human

**Applications:** Flow Cyt, IHC-Fr, IHC-P, IP  
(See our web site product page for detailed applications information)

**Protocols:** See our web site at <http://www.abnova.com/support/protocols.asp> or product page for detailed protocols

**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<sup>6</sup> 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.

**Entrez GeneID:** 5788

**Gene Symbol:** PTPRC

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

**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 extracellular 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]

#### References:

1. 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. Merckenschlager M, Terry L, Edwards R, Beverley PC. Eur J Immunol. 1988 Nov;18(11):1653-61.
2. 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):331-6.
3. Phenotypic diversity of the CD45 antigen and its relationship to function. Beverley PC, Merckenschlager M, Terry L. Immunol Suppl. 1988;1:3-5.