

## Datasheet

### PTPRC monoclonal antibody, clone F10-89-4

**Catalog Number:** MAB5626

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

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

**Clone Name:** F10-89-4

**Immunogen:** T cells of human lymph nodes.

**Host:** Mouse

**Reactivity:** Human

**Applications:** Flow Cyt, IHC-Fr, IP, WB  
(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:** human CD45/LCA.

**Form:** Liquid

**Isotype:** IgG2a

**Recommend Usage:** Flow Cytometry (1 ug/10<sup>6</sup> cells)  
The optimal working dilution should be determined by the end user.

**Storage Buffer:** In 100 mM BBS, pH 8.2

**Storage Instruction:** Store at 4°C.

**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. CD45: an emerging role as a protein tyrosine phosphatase required for lymphocyte activation and development. Trowbridge IS, Thomas ML. *Annu Rev Immunol.* 1994;12:85-116.
2. The leukocyte common antigen family. Thomas ML. *Annu Rev Immunol.* 1989;7:339-69.
3. Monoclonal antibody to a human leukocyte-specific membrane glycoprotein probably homologous to the leukocyte-common (L-C) antigen of the rat. Dalchau R, Kirkley J, Fabre JW. *Eur J Immunol.* 1980 Oct;10(10):737-44.