

# PTPRC monoclonal antibody, clone F10-89-4 (PE)

Catalog # MAB6066

Size 100 Reactions

## Specification

|                            |                                                                                                                                   |
|----------------------------|-----------------------------------------------------------------------------------------------------------------------------------|
| <b>Product Description</b> | Mouse monoclonal antibody raised against native PTPRC.                                                                            |
| <b>Immunogen</b>           | Native purified from T cells of human lymph nodes.                                                                                |
| <b>Host</b>                | Mouse                                                                                                                             |
| <b>Reactivity</b>          | Human                                                                                                                             |
| <b>Specificity</b>         | Specificity human CD45                                                                                                            |
| <b>Form</b>                | Liquid                                                                                                                            |
| <b>Conjugation</b>         | PE                                                                                                                                |
| <b>Isotype</b>             | IgG2a                                                                                                                             |
| <b>Recommend Usage</b>     | Flow Cytometry (10 ul/10 <sup>6</sup> cells)<br>The optimal working dilution should be determined by the end user.                |
| <b>Storage Buffer</b>      | In PBS (0.09% sodium azide)                                                                                                       |
| <b>Storage Instruction</b> | Store in the dark at 4°C. Do not freeze.<br>Avoid prolonged exposure to light.<br>Aliquot to avoid repeated freezing and thawing. |
| <b>Note</b>                | This product contains sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.            |

## Applications

- 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

- [CD45: an emerging role as a protein tyrosine phosphatase required for lymphocyte activation and development.](#)

Trowbridge IS, Thomas ML.

Annual Review of Immunology 1994 Jan; 12:85.

- [The leukocyte common antigen family.](#)

Thomas ML.

Annual Review of Immunology 1989 Jan; 7:399.

- [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.

European Journal of Immunology 1980 Oct; 10(10):737.

## 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](#)