

PTPRC monoclonal antibody, clone F10-89-4

Catalog # MAB5626

Size 100 ug

Specification

Product Description	Mouse monoclonal antibody raised against native PTPRC.
Immunogen	T cells of human lymph nodes.
Host	Mouse
Reactivity	Human
Specificity	human CD45/LCA.
Form	Liquid
Isotype	IgG2a
Recommend Usage	Flow Cytometry (1 ug/10 ⁶ 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.

Applications

- Western Blot
- 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.

Application: AFC, Flow Cyt, Func, IHC-Fr, Human, Human bone marrow, granulocytes, lymph node, normal serum, platelets, RBC, spleen, thymus

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](#)