PTPRC monoclonal antibody, clone F10-89-4 (PE/Cy7)

Catalog # MAB6071 Size 100 Reactions

Specification

Product Description	Mouse monoclonal antibody raised against native PTPRC.
Immunogen	Native purified from T cells of human lymph nodes.
Host	Mouse
Reactivity	Human
Specificity	Specificity human CD45
Form	Liquid
Conjugation	PE/Cy7
Isotype	IgG2a
Recommend Usage	Flow Cytometry (10 ul/10^6 cells) The optimal working dilution should be determined by the end user.
Storage Buffer	In PBS (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 shoul d be handled by trained staff only.

Applications

- Immunohistochemistry (Frozen sections)
- Flow Cytometry

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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 c ell growth, differentiation, mitotic cycle, and oncogenic transformation. This PTP contains an extra cellular domain, a single transmembrane segment and two tandem intracytoplasmic catalytic dom ains, 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 sign aling. It functions through either direct interaction with components of the antigen receptor comple xes, or by activating various Src family kinases required for the antigen receptor signaling. This P TP 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 b een reported. [provided by RefSeq
Other Designations	CD45 antigen|T200 glycoprotein|T200 leukocyte common antigen|glycoprotein|leukocyte-commo n 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.

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- 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

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- Lymphopenia
- Multiple Sclerosis
- Paraparesis
- Scleroderma
- Severe combined immunodeficiency
- Thyroiditis

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