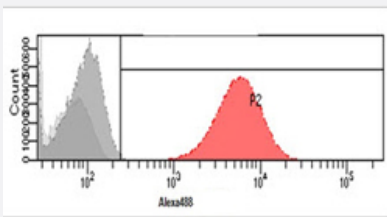


PTPRC monoclonal antibody, clone 3G4

Catalog # MAB1108

Size 100 uL

Applications



Flow Cytometry

Flow cytometric analysis of Jurkat cells. The cell was stained with PTPRC monoclonal antibody, clone 3G4 at 2-5 ug for 1x10⁶ cells (red). A Goat anti mouse IgG (Alexa fluor 488) was used as the secondary antibody. Mouse monoclonal IgG was used as the isotype control (dark gray), cells without incubation with primary and secondary antibody was used as the negative control (light gray).

Specification

Product Description	Mouse monoclonal antibody raised against partial recombinant PTPRC.
Immunogen	Recombinant protein corresponding to amino acids 1029-1249 of human PTPRC.
Host	Mouse
Reactivity	Human
Form	Liquid
Purification	Protein G purification
Isotype	IgG2a, kappa
Recommend Usage	ELISA Flow Cytometry The optimal working dilution should be determined by the end user.
Storage Buffer	In PBS, pH 7.4 (10% glycerol, 0.02% sodium azide).
Storage Instruction	Store at 2°C to 8°C for 1 week. For long term storage, aliquot and store at -20°C to -80°C. Aliquot to avoid repeated freezing and thawing.

Note

This product contains sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.

Applications

- Enzyme-linked Immunoabsorbent Assay
- Flow Cytometry

Flow cytometric analysis of Jurkat cells. The cell was stained with PTPRC monoclonal antibody, clone 3G4 at 2-5 ug for 1×10^6 cells (red). A Goat anti mouse IgG (Alexa fluor 488) was used as the secondary antibody. Mouse monoclonal IgG was used as the isotype control (dark gray), cells without incubation with primary and secondary antibody was used as the negative control (light gray).

Gene Info — PTPRC

Entrez GeneID [5788](#)

GeneBank Accession# [NM_002838](#)

Protein Accession# [P08575](#)

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: all is not yet crystal clear.](#)

Holmes N.

Immunology 2006 Feb; 117(2):145.

- [Genomic organization of the channel catfish CD45 functional gene and CD45 pseudogenes.](#)

Kountikov E, Wilson M, Quiniou S, Miller N, Clem W, Bengten E.

Immunogenetics 2005 Jun; 57(5):374.

- [Epitope-specific crosslinking of CD45 down-regulates membrane-associated tyrosine phosphatase activity and triggers early signalling events in human activated T cells.](#)

Spertini F, Perret-Menoud V, Barbier N, Chatila T, Barbey C, Corthesy B.

Immunology 2004 Dec; 113(4):441.

Application: Func, Human, Human T cells

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](#)