

Datasheet

PTPRC monoclonal antibody, clone 3G4

Catalog Number: MAB1108

Regulatory Status: For research use only (RUO)

Product Description: Mouse monoclonal antibody raised against partial recombinant PTPRC.

Clone Name: 3G4

Immunogen: Recombinant protein corresponding to amino acids 1029-1249 of human PTPRC.

Host: Mouse

Reactivity: Human

Applications: ELISA, WB-Ce

(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

Form: Liquid

Isotype: IgG2a, kappa

Recommend Usage: Western Blot (1:1000-1:3000)

The optimal working dilution should be determined by the end user.

Storage Buffer: In PBS, pH 7.4 (0.09% sodium azide)

Storage Instruction: Store at -20°C.

Aliquot to avoid repeated freezing and thawing.

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: all is not yet crystal clear. Holmes N. *Immunology*. 2006 Feb;117(2):145-55.
2. 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):374-83. Epub 2005 May 3.
3. 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):441-52.