

Datasheet

PTPRC polyclonal antibody

Catalog Number: PAB3629

Regulatory Status: For research use only (RUO)

Product Description: Rabbit polyclonal antibody raised against synthetic peptide of PTPRC.

Immunogen: A synthetic peptide (conjugated with KLH) corresponding to C-terminus of human PTPRC.

Host: Rabbit

Reactivity: Human

Applications: Flow Cyt, IHC-P, 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

Purification: Protein G purification

Recommend Usage: Flow Cytometry (1:10-50)
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) (1:10-50)
Western Blot (1:1000)
The optimal working dilution should be determined by the end user.

Storage Buffer: In PBS (0.09% sodium azide)

Storage Instruction: Store at 4°C. For long term storage 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. A high-frequency polymorphism in exon 6 of the CD45 tyrosine phosphatase gene (PTPRC) resulting in altered isoform expression. Stanton T, Boxall S, Hirai K, Dawes R, Tonks S, Yasui T, Kanaoka Y, Yuldasheva N, Ishiko O, Bodmer W, Beverley PC, Tchilian EZ. Proc Natl Acad Sci U S A. 2003 May 13;100(10):5997-6002. Epub 2003 Apr 25.
2. Negative regulation of T cell activation by placental protein 14 is mediated by the tyrosine phosphatase receptor CD45. Rachmilewitz J, Borovsky Z, Riely GJ, Miller R, Tykocinski ML. J Biol Chem. 2003 Apr 18;278(16):14059-65. Epub 2003 Jan 29.
3. 77 C/G mutation in the tyrosine phosphatase CD45 gene and autoimmune hepatitis: evidence for a genetic link. Vogel A, Strassburg CP, Manns MP. Genes Immun. 2003 Jan;4(1):79-81.