

## Datasheet

### PTPRC monoclonal antibody, clone D3/9

**Catalog Number:** MAB4982

**Regulatory Status:** For research use only (RUO)

**Product Description:** Mouse monoclonal antibody raised against PTPRC.

**Clone Name:** D3/9

**Host:** Mouse

**Reactivity:** Human

**Applications:** Flow Cyt, IF, IHC  
(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 A/G purification

**Isotype:** IgG1

**Recommend Usage:** Flow Cytometry (20  $\mu$ L/ $10^6$  cells)  
The optimal working dilution should be determined by the end user.

**Storage Buffer:** In buffer containing 1% BSA, pH 7.2 (0.09% sodium azide).

**Storage Instruction:** Store in the dark at 4°C. Avoid prolonged exposure to light.

**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. Interferon-gamma therapy reduces blood leukocyte levels in patients with atopic dermatitis: correlation with clinical improvement. Ellis CN, Stevens SR, Blok BK, Taylor RS, Cooper KD. Clin Immunol. 1999 Jul;92(1):49-55.
2. Immunophenotypic characterization of human bone marrow mast cells. A flow cytometric study of normal and pathological bone marrow samples. Escribano L, Orfao A, Villarrubia J, Diaz-Agustin B, Cervero C, Rios A, Velasco JL, Ciudad J, Navarro JL, San Miguel JF. Anal Cell Pathol. 1998;16(3):151-9.
3. The functional significance, distribution, and structure of LFA-1, LFA-2, and LFA-3: cell surface antigens associated with CTL-target interactions. Krensky AM, Sanchez-Madrid F, Robbins E, Nagy JA, Springer TA, Burakoff SJ. J Immunol. 1983 Aug;131(2):611-6.