



CD45R Antibody [RA3-6B2] (PerCP-Cy5.5)

CATALOG NUMBER: 76-479

Specifications

SPECIES REACTIVITY:

TESTED APPLICATIONS:

USER NOTE: Optimal dilutions for each application to be determined by the researcher.

SPECIFICITY: The RA3-6B2 monoclonal antibody specifically reacts with a 220 kDa exon A-restricted epitope on the extracellular domain of mouse CD45 glycoprotein.

HOST SPECIES: Rat

Properties

PURIFICATION: The monoclonal antibody was purified utilizing affinity chromatography and unreacted dye was removed from the product.

PHYSICAL STATE: liquid

BUFFER: Phosphate-buffered aqueous solution, ≤0.09% Sodium azide, may contain carrier protein/stabilizer, pH7.2.

CONCENTRATION: 0.2 mg/mL

STORAGE CONDITIONS: The product should be stored undiluted at 4°C and should be protected from prolonged exposure to light. Do not freeze.

CLONALITY: Monoclonal

ISOTYPE: Rat IgG2a, kappa

CONJUGATE: PerCP-Cy5.5

Additional Info

ALTERNATE NAMES: LCA, LY5, B220, CD45, L-CA, T200, CD45R, GP180, loc, B220, Cd45, L-CA, Ly-5, T200, CD45R, Lyt-4, PTPRC

OFFICIAL SYMBOL: PTPRC

GENE ID: 5788; 19264

Background

BACKGROUND: The RA3-6B2 monoclonal antibody specifically reacts with a 220 kDa exon A-restricted epitope on the extracellular domain of mouse CD45 glycoprotein. CD45R/B220 is expressed on all the development stages of B cells, and at a low level on plasma cells and a subset of memory B cells. Low levels of CD45R/B220 are also expressed by some activated T lymphocytes, natural killer cell progenitors in the bone marrow, lymphokine activated killer cells (LAK), T lymphocytes of lpr/lpr mutant mouse, apoptotic T cells of mice injected with bacterial superantigens, and macrophage progenitors in fetal liver. The CD45 molecule is a member of the Protein Tyrosine Phosphatase (PTP) family, because its intracellular region contains two PTP domains. The extracellular region's variability is caused by different levels of glycosylation, and the splicing of the 4, 5, and 6 exons. The isoforms found in the mouse strains depend on the activation state, maturation stage and cell type, and are very important in B and T lymphocytes antigen receptor signal transduction. The RA3-6B2 antibody inhibits in vivo B lymphocytes responses and enhances isotype switching during in vitro B lymphocyte responses.

REFERENCES: 1) Coffman, R. L. (1983). Surface Antigen Expression and Immunoglobulin Gene Rearrangement During Mouse pre-B Cell Development. Immunological reviews, 69(1), 5-23.

2) Allman, D. M., Ferguson, S. E., Cancro, M. P. (1992). Peripheral B cell maturation. I. Immature peripheral B cells in adults are heat-stable antigenhi and exhibit unique signaling characteristics.The Journal of Immunology,149(8), 2533-2540.

3) Monteith, C. E., Chelack, B. J., Davis, W. C., Haines, D. M. (1996). Identification of monoclonal antibodies for immunohistochemical staining of feline B lymphocytes in frozen and formalin-fixed paraffin-embedded tissues.Canadian journal of veterinary research,60(3), 193.

FOR RESEARCH USE ONLY

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