

Monoclonal Antibody to CD45 / LCA (CD45R) - Supernatant

Alternate names: L-CA, Leukocyte common antigen, PTPRC, Receptor-type tyrosine-protein phosphatase C,

1200

Catalog No.: SM033 Quantity: 2 ml

Background: CD45R is a member of the protein tyrosine phosphatase (PTP) family and a major cell

surface glycoprotein. PTPs are known to be signaling molecules that regulate a variety of cellular processes including cell growth, differentiation, mitotic cycle, and oncogenic transformation. CD45R represents a restricted form of the CD45 family which primarily recognizes only cells of B lineage from proB cell through mature B lymphocytes and, prior to the availability of anti CD19 MAbs, was commonly used as a pan B cell marker. It also reacts with certain activated T cells, as well as non MHC restricted lytically active lymphokine activated killer (LAK) cells. CD45R contains an extracellular domain, a single transmembrane segment and two tandem intracytoplasmic catalytic domains. It is specifically expressed in hematopoietic cells and 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. CD45R 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.

Uniprot ID: P04157

NCBI: <u>NP_001103357.1</u>

GenelD: <u>24699</u>

Host / Isotype: Mouse / IgG2b

Clone: HIS24

Immunogen: Single cell suspension of rat peyers patches. Spleen cells from immunised BALB/c mice

were fused with cells of the mouse X63/Ag8 myeloma cell line.

Format: State: Liquid Tissue Culture Supernatant

Buffer System: 0.2M Tris/HCl, pH 7.4 containing 5-10% Foetal Calf Serum and 0.09%

Sodium Azide as preservative.

Applications: Flow Cytometry: Use 10 µl of 1/5 diluted antibody to label 10e6 cells in 100 µl.

Immunohistochemistry on Frozen Sections: 1/40.

Other applications not tested. Optimal dilutions are dependent on conditions and should

be determined by the user.



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Specificity: This antibody reacts with mature and precursor B lymphocytes.

Weak reaction with marginal zone B cells and a small subset of T cells and CD45R.

Species: Rat.

Other species not tested.

Storage: Store the antibody undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer.

Avoid repeated freezing and thawing. Shelf life: one year from despatch.