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Anti-Mouse CD45.1 Antibody, Clone A20, PE

Mouse monoclonal antibody against mouse CD45.1, PE-conjugated

Catalog #100-1593 100 µg 0.2 mg/mL

Product Description

This monoclonal antibody reacts with mouse alloantigen cluster of differentiation 45.1 (CD45.1), a 180 - 240 kDa type I transmembrane glycoprotein, also known as Ly5.1 and leukocyte common antigen. CD45.1 is an allelic form of CD45 expressed by all hematopoietic cells except mature erythrocytes and platelets in mouse strains DA, RIII, SJL/J, and STS/A. Clone A20 does not react with leukocytes that express CD45.2 alloantigen. CD45 is a member of the protein tyrosine phosphatase (PTP) family and contains two catalytic domains in the intracellular (COOH) domain, which regulate cellular signaling. The extracellular domains are highly variable due to alternative splicing among exons 4, 5, and 6 as well as differential glycosylation. These CD45 isoforms correlate to specific cell types as well as specific activation and maturation states of immune cells. This monoclonal antibody has been used extensively in adoptive cell transfer and bone marrow transplantation studies in mice, allowing for the differentiation of CD45.2+ and CD45.1+ cells.

Target Antigen:	CD45.1
Alternative Names:	B220, CD45 antigen, CD45R, GP180, LCA, leukocyte common antigen, Ly5.1, Lyt4, protein tyrosine phosphatase receptor type C, Ptprc, RT7.1, SJL, T200
Gene ID:	19264
Species Reactivity:	Mouse; does not react with mouse CD45.2
Host Species:	Mouse
Clonality:	Monoclonal
Clone:	A20
Isotype:	IgG2a, kappa
Immunogen:	SJL mouse thymocytes and splenocytes
Conjugate:	PE (Phycoerythrin)

Applications

Verified Applications:	FC
Reported Applications:	FC
Special Applications:	This antibody clone has been verified for purity assessment of cells isolated with EasySep™ Mouse CD45 Positive Selection Kit (Catalog #18945) or EasySep™Mouse TIL (CD45) Positive Selection Kit (Catalog #100-0350).

Abbreviations: CellSep: Cell separation; ChIP: Chromatin immunoprecipitation; FA: Functional assay; FACS: Fluorescence-activated cell sorting; FC: Flow cytometry; FCXM: Flow cytometric crossmatch assay; FISH: Fluorescence in situ hybridization; ICC: Immunocytochemistry; IF: Immunofluorescence microscopy; IHC: Immunohistochemistry; IHC-F: Immunohistochemistry (frozen-tissue); IHC-P: Immunohistochemistry (paraffin-embedded); IP: Immunoprecipitation; NMR: Nuclear magnetic resonance spectroscopy; RIA: Radioimmunoassay; WB: Western blotting

Properties

Product Formulation:	Phosphate-buffered saline, pH 7.2, containing 0.09% sodium azide and 0.1% gelatin
Purification:	The antibody was purified by affinity chromatography and conjugated with PE under optimal conditions. The solution is free of unconjugated PE.
Stability and Storage:	Product stable at 2 - 8°C when stored undiluted. Do not freeze. Protect products from prolonged exposure to light. Stable until expiry date (EXP) on label.
Directions for Use:	For flow cytometry, the suggested use of this antibody is ≤ 1 µg per 1 x 10^6 cells in 100 µL. It is recommended that the antibody be titrated for optimal performance for each application.

Related Products

For a complete list of antibodies, including other conjugates, sizes, and clones, as well as related products available from STEMCELL Technologies, visit www.stemcell.com/antibodies, or contact us at techsupport@stemcell.com.

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