TOLL FREE PHONE 1 800 667 0322 • PHONE +1 604 877 0713
INFO@STEMCELL.COM • TECHSUPPORT@STEMCELL.COM
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Anti-Mouse CD45.1 Antibody, Clone A20, Biotin

Mouse monoclonal IgG2a antibody against mouse CD45.1, biotin-conjugated

Catalog #60117BT.1	50 µg	0.5 mg/mL
Catalog #60117BT	500 µg	0.5 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, 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:	Biotin

Applications

Verified Applications:	FC
Reported Applications:	FC, IF, IHC

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 solution, pH 7.2, containing 0.09% sodium azide
Purification:	The antibody was purified by affinity chromatography and conjugated with biotin under optimal conditions. The solution is free of unconjugated biotin.
Stability and Storage:	Product stable at 2 - 8°C when stored undiluted. Do not freeze. For product expiry date, please contact techsupport@stemcell.com.
Directions for Use:	For flow cytometry, the suggested use of this antibody is ≤ 0.25 µg per 1 x 10^6 cells in 100 µL. It is recommended that the antibody be titrated for optimal performance for each application.

Data

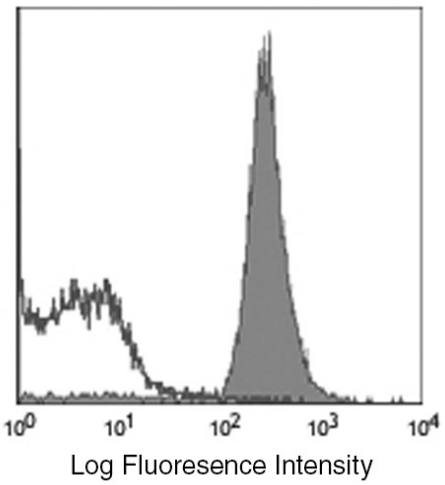

Figure 1. Data for Anti-Mouse CD45.1 Antibody, Clone A20, Biotin.

Flow cytometry analysis of SLJ mouse splenocytes labeled with Anti-Mouse CD45.1 Antibody, Clone A20, Biotin followed by streptavidin (SAV) PE (filled histogram).

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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