Mouse CD200 APC-conjugated Antibody

Antigen Affinity-purified Polyclonal Goat IgG
Catalog Number: FAB3355A
100 TESTS

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse CD200 in direct ELISAs and Western blots. In direct ELISAs and Western blots, approximately 25% cross-reactivity with recombinant human CD200 is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant mouse CD200 Gln31-Gly232 Accession # O54901
Conjugate	Allophycocyanin Excitation Wavelength: 620-650 nm Emission Wavelength: 660-670 nm
Formulation	Supplied in a saline solution containing BSA and Sodium Azide. See Certificate of Analysis for details. *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

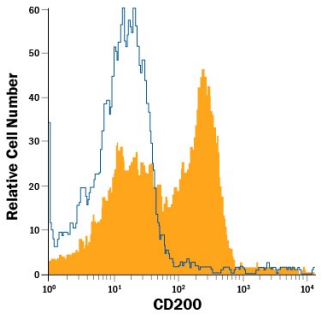
APPLICATIONS

Please Note: *Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.*

	Recommended Concentration	Sample
Flow Cytometry	10 µL/10^6 cells	See Below

DATA

Flow Cytometry



Detection of CD200 in Mouse Splenocytes by Flow Cytometry. Mouse splenocytes were stained with Goat Anti-Mouse CD200 APC-conjugated Antigen Affinity-purified Polyclonal Antibody (Catalog # FAB3355A, filled histogram) or isotype control antibody (Catalog # IC108A, open histogram). View our protocol for Staining Membrane-associated Proteins.

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	**Protect from light. Do not freeze.** ● 12 months from date of receipt, 2 to 8 °C as supplied.

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BACKGROUND

CD200, also known as OX-2, is a 45 kDa type I transmembrane immunoregulatory protein that belongs to the immunoglobulin superfamily (1, 2). The mouse CD200 cDNA encodes a 278 amino acid (aa) precursor that includes a 30 aa signal sequence, a 202 aa extracellular domain (ECD), a 27 aa transmembrane segment, and a 19 aa cytoplasmic domain. The ECD is composed of one Ig-likeV-type and one Ig-like C2-type domain (3). Splice variants of CD200 have been described in human but not in mouse. Within the ECD, mouse CD200 shares 76% and 94% aa sequence identity with human and rat CD200, respectively. CD200 is widely but not ubiquitously expressed (4). Its receptor (CD200R) is restricted primarily to mast cells, basophils, macrophages, and dendritic cells, which suggests myeloid cell regulation as the major function of CD200 (5-7). CD200 knockout mice are characterized by increased macrophage number and activation, and are predisposed to autoimmune disorders (8). CD200 and CD200 R associate via their respective N-terminal Ig-like domains (9). In myeloid cells, CD200 R initiates inhibitory signals following receptor-ligand contact (6, 7, 10). In T cells, CD200 functions as a costimulatory molecule that is independent of the CD28 pathway (11). Several additional CD200 R-like molecules have been identified in human and mouse, but their capacity to interact with CD200 is controversial (12, 13). Several viruses encode CD200 homologs which are expressed on infected cells during the lytic phase (14, 15). Like CD200 itself, viral CD200 homologs also suppress myeloid cell activity, enabling increased viral propagation (5, 14-16).

References:

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