

DESCRIPTION

Species Reactivity	Mouse/Rat
Specificity	Detects mouse CD200 in direct ELISAs and mouse CD200 and rat CD200 Western blots. In direct ELISAs, approximately 50% 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	Alexa Fluor 405 Excitation Wavelength: 405 nm Emission Wavelength: 421 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide *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.

Western Blot	Optimal dilution of this antibody should be experimentally determined.
Immunohistochemistry	Optimal dilution of this antibody should be experimentally determined.

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

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).

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