

## DESCRIPTION

<b>Species Reactivity</b>	Mouse
<b>Specificity</b>	Detects mouse CD200 R1 in Western blots. In Western blots, less than 5% cross-reactivity with recombinant human CD200 R is observed.
<b>Source</b>	Polyclonal Goat IgG
<b>Purification</b>	Antigen Affinity-purified
<b>Immunogen</b>	Mouse myeloma cell line NS0-derived recombinant mouse CD200 R1 Thr26-Pro238 Accession # BAE42266
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution in PBS with BSA as a carrier protein. See Certificate of Analysis for details.

## 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.

	<b>Recommended Concentration</b>	<b>Sample</b>
<b>Western Blot</b>	0.1 µg/mL	Recombinant Mouse CD200 R1 Fc Chimera (Catalog # 2554-CD)
<b>Flow Cytometry</b>	2.5 µg/10 <sup>6</sup> cells	MC/9-2 mouse masT cell line
<b>Immunocytochemistry</b>	5-15 µg/mL	Immersion fixed mouse splenocytes

## PREPARATION AND STORAGE

<b>Reconstitution</b>	Reconstitute at 0.2 mg/mL in sterile PBS.
<b>Shipping</b>	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.
<b>Stability &amp; Storage</b>	<p><b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b></p> <ul style="list-style-type: none"> <li>• 12 months from date of receipt, -20 to -70 °C as supplied.</li> <li>• 1 month, 2 to 8 °C under sterile conditions after reconstitution.</li> <li>• 6 months, -20 to -70 °C under sterile conditions after reconstitution.</li> </ul>

## BACKGROUND

CD200 R1, also known as OX-2 receptor, is a 90 kDa, type I transmembrane protein that belongs to the immunoglobulin superfamily. CD200 R1 is important in the regulation of myeloid cell activity (1-3). The mouse CD200 R1 cDNA encodes a 326 aa precursor that includes a 25 aa signal sequence, a 213 aa extracellular domain (ECD), a 21 aa transmembrane segment, and a 67 aa cytoplasmic domain. The ECD is composed of one Ig-like V-type domain and one Ig-like C2-type domain (4). Within the ECD, mouse CD200 R1 shares 56% and 70% aa sequence identity with human and rat CD200 R1, respectively. The ECD of mouse CD200 R1 shares 69%, 38%, 79%, and 83% aa sequence identity with the ECD of CD200 R2, 3, 4, and a CD200 R-like molecule, respectively. CD200 R1 is expressed primarily on mast cells, basophils, macrophages, and dendritic cells, (5-7) while its ligand, CD200, is widely distributed (8). Disruption of this receptor-ligand pair by knockout of the CD200 gene leads to increased macrophage number and activation, plus a predisposition to autoimmune disorders (9). Association of CD200 with CD200 R1 takes place between their respective N-terminal Ig-like domains (10). The CD200 R-like molecules may interact differently with CD200 (11, 12). The cytoplasmic domain of CD200 R1 contains two non-ITIM tyrosine residues which are required for propagating its inhibitory signals (13-15). CD200 R-like molecules, in contrast, are potentially activating receptors by means of their association with DAP12 (4, 16).

## References:

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