

DESCRIPTION

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

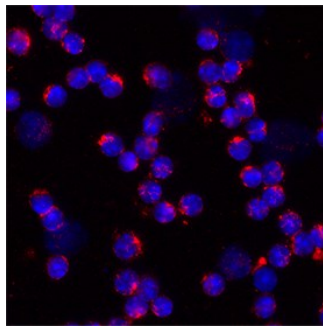
APPLICATIONS

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.

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

DATA

Immunocytochemistry



CD200R1 in Mouse Splenocytes. CD200R1 was detected in immersion fixed mouse splenocytes using Goat Anti-Mouse CD200R1 Biotinylated Antigen Affinity-purified Polyclonal Antibody (Catalog # BAF2554) at 15 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Streptavidin (red; Catalog # NL999) and counterstained with DAPI (blue). Specific staining was localized to cytoplasm and cell surface. Staining was performed using our protocol for Fluorescent ICC Staining of Non-adherent Cells.

PREPARATION AND STORAGE

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

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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