Mouse CD200R1 Alexa Fluor® 488-conjugated Antibody

Monoclonal Rat IgG_{2A} Clone # 330502

Catalog Number: FAB2554G

100 µg

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse CD200 R1 in direct ELISAs and Western blots. In direct ELISAs and Western blots, no cross-reactivity with recombinant human CD200 R1 is observed.
Source	Monoclonal Rat IgG_{2A} Clone # 330502
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Mouse myeloma cell line NS0-derived recombinant mouse CD200 R1 Thr26-Pro238 Accession # BAE42266
Conjugate	Alexa Fluor 488 Excitation Wavelength: 488 nm Emission Wavelength: 515-545 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.

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 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).

PRODUCT SPECIFIC NOTICES

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