ALPHA DIAGNOSTIC INTERNATIONAL

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Product Data Sheet

Mouse CD200R (OX2) Antibodies and Conjugates

□ **Cat#** MCD200R-**M**	Rat Anti-Mouse CD200R, Purified	**Size**: 100 ug
□ **Cat#** MCD200R-**F**	Rat Anti-Mouse CD200R IgG-FITC Conjugate	**Size**: 50 tests
□ **Cat#** MCD200R-**B**	Rat Anti-Mouse CD200R IgG-Biotin Conjugate	**Size**: 100 tests
□ **Cat#** MCD200R-**PE**	Rat Anti-Mouse CD200R-PE Conjugate	**Size**: 50 tests

OX-2 membrane glycoprotein, also named CD200 (Cluster of Differentiation 200) is a human protein encoded by the CD200 gene. The protein encoded by this gene is a type-1 membrane glycoprotein, which contains two immunoglobulin domains, and thus belongs to the immunoglobulin superfamily. Studies of the related genes in mouse and rat suggest that this gene may regulate myeloid cell activity and delivers an inhibitory signal for the macrophage lineage in diverse tissues. Multiple alternatively spliced transcript variants that encode different isoforms have been found for this gene.

Rat anti-mouse CD200 monoclonal antibody reacts with CD200 (OX2), a highly conserved type I membrane glycoprotein that is expressed on a variety of cell types including thymocytes, some T cells, endothelial and follicular dendritc cells, and brain tissue (neurons). CD200 consists of 2 immunoglobulin (Ig) domains, a Cterminus transmembrane domain and a small cytoplasmic domain (19 aa) which lacks signaling motifs. CD200 is the ligand for CD200 receptor (CD200R), which is very similar in structure to CD200 except that it has a larger cytoplasmic domain (67 aa), and its expression is restricted to myeloid-derived antigen presenting cells (APC's) and certain populations of T cells. Blocking of CD200/CD200R interactions decreases myeloid cell inhibitory thresholds which results in enhanced immune activation. This clone is suitable for use in flow cytometry, immunohistochemistry (frozen sections) and ELISA.

#MCD200R antibody is a rat monoclonal (IgG) reacting with mouse Cd200.

Matching rat isotype (IgG) Controls

20005-5	Rat IgG, purified
20005-B	Rat IgG-Biotin conjugate
20005-F	Rat IgG-FITC conjugate
20005-HP	Rat IgG-HRP conjugate
20005-PE	Rat IgG-PE conjugate

Cat# MCD200R-M, unlabeled

The antibody is supplied in PBS, pH 7.4, in either **lyophilized** (100 tests) or **liquid** form (lot specific volume indicated on the vial). Reconstitute powder in water. Store at -2-4oC. Stability is ~6-12 months. Do not freeze and thaw.

Cat# MCD200R-F, FITC-conjugate

Purified antibody was coupled to FITC at F/P ratio ~5. The antibody is supplied in PBS, pH 7.4, 1% BSA, 0.05% azide (see lot sp concn on the vial) or in powder form. **Reconstitute** powder in PBS to prepare stock solutions**.** Store at -20oC in suitable aliquots. Stability is ~6-12 months. Do not freeze/thaw.

Suggested conjugate dilutions are 1:20-1:500 for immunofluorescence. Or 1 test equivalent of antibody per million cells.
Absorption @495 nm **Emission** @528 nm

Cat# MCD200R-B, Biotin-conjugate

Purified antibody was coupled to Biotin using Biotinamidocaproate N-Hydroxysuccinimide Ester (BAC**)** at F/P ratio ~10-20:1. The antibody is supplied in PBS, pH 7.4, 0.2% BSA and 0.05% azide in either **lyophilized** or **liquid** form (or see lot sp. conc on the vial). Reconstitute powder in PBS to prepare stock solution. Store at -20oC in suitable aliquots. Stability is ~6-12 months. Do not freeze and thaw.

Suggested conjugate dilutions are 1:5,000-1:30,000 ELISA, 1:2K-1:10K for western.

Cat# MCD200R-PE, PE-conjugate

The purified antibody was coupled to R-Phycoerythrin (R-PE) (Molecular Weight 240,000 daltons) from seaweed using proprietary methods (A565nm/A280nm ~3-4).

Absorption: 490 nm, 545 nm and 565 nm
Emission Wavelength: 580 nm

The conjugate is provided in PBS, pH 7.5, containing 0.1% bovine serum albumin, (BSA) 0.05% sodium azide and stabilizing agent). DO NOT FREEZE. The product should be stored at 4oC and is stable for a minimum of 1 year. Do not store diluted solutions.

Recommended usage is ~10 ul/106 cells for Flow cytometry or FACS. Due to many experimental variations, optimum concn must be determined for a given applications

Recommended Working Dilution

Working dilution for the specific application should be determined by the investigator to obtain the best conditions and prepared immediately before use. Diluted solution should be discarded. This product can be used in immunodiffusion, ELISA, flow cytometry, immunofluorescence or immunolocalization.

References: Gorczynski Rm (2002) Acr. Immunol. There. Exp. 49, 303-309; McCaughan GW, (1987) Immunogenetics 25; 329–35; Hoek RM (2000), Science 290 (5497): 1768–71; Wright GJ (2001) Immunology 102 (2): 173–9.

MCD200R 140626A

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