

## ORDERING INFORMATION

**Catalog Number:** AF3414

**Lot Number:** YUI03

**Size:** 100 µg

**Formulation:** 0.2 µm filtered solution in PBS with 5% trehalose

**Storage:** -20° C

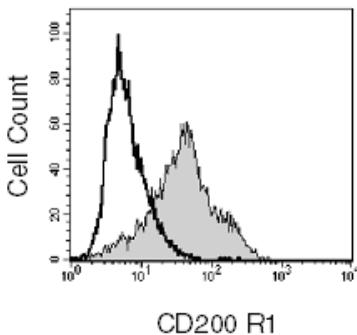
**Reconstitution:** sterile PBS

**Specificity:** human CD200 R1 extracellular domain

**Immunogen:** NS0-derived rhCD200 R1 extracellular domain

**Ig Type:** goat IgG

**Applications:** Western blot  
Flow cytometry  
Blocking of receptor-ligand interaction  
Direct ELISA



Immature dendritic cells were stained with anti-CD200 R1 (R&D Systems, Cat. # AF3414, filled histogram) or control antibody (R&D Systems, Cat. # AB-108-C, open histogram), followed by PE-conjugated anti-goat antibody (R&D Systems, Cat. # F0107).

## Background

CD200 R1, also known as OX-2 receptor, is one of four CD200 R related proteins within the immunoglobulin superfamily. CD200 R1 is a type I transmembrane protein with a PTB-signaling motif in its cytoplasmic domain. Engagement of CD200 R1 by CD200 elicits an inhibitory signal in mast cells, basophils, macrophages, and dendritic cells. Alternate splicing of the human CD200 R1 mRNA generates four isoforms, two of which are truncated in the Ig-C2 domain and are likely secreted. Within the ECD, human CD200 R1 shares 56% aa sequence identity with mouse and rat CD200 R1.

## Preparation

Produced in goats immunized with purified, NS0-derived, recombinant human CD200 R1 (rhCD200 R1; aa 27 - 266; R&D Systems, Catalog # 3414-CD). Human CD200 R1 specific IgG was purified by human CD200 R1 affinity chromatography.

## Formulation

Lyophilized from a 0.2 µm filtered solution in phosphate-buffered saline (PBS) with 5% trehalose.

## Endotoxin Level

< 0.1 EU per 1 µg of the antibody as determined by the LAL method.

## Reconstitution

Reconstitute with sterile PBS. If 0.5 mL of PBS is used, the antibody concentration will be 0.2 mg/mL.

## Storage

Lyophilized samples are stable for twelve months from date of receipt when stored at -20° C to -70° C. Upon reconstitution, the antibody can be stored at 2° - 8° C for 1 month without detectable loss of activity. Reconstituted antibody can also be aliquotted and stored frozen at -20° C to -70° C in a manual defrost freezer for six months without detectable loss of activity. **Avoid repeated freeze-thaw cycles.**

## Specificity

This antibody has been selected for its ability to recognize human CD200 R1 in the applications listed below. In direct ELISAs and Western blots, this antibody shows less than 5% cross-reactivity with rmCD200 R1.

## Applications

**Western blot** - This antibody can be used at 0.1 - 0.2 µg/mL with the appropriate secondary reagents to detect human CD200 R1. The detection limit for rhCD200 R1 is approximately 5 ng/lane under non-reducing and reducing conditions.

**Flow cytometry** - This antibody has been tested on human immature dendritic cells for use in flow cytometry. Dilute this antibody to 50 µg/mL and add 10 µL of the diluted solution to 1 - 2.5 x 10<sup>5</sup> cells in a total reaction volume not exceeding 200 µL. The binding of unlabeled antibodies may be visualized by adding 10 µL of a 25 µg/mL stock solution of a secondary developing reagent such as anti-goat IgG conjugated to a fluorochrome.

**Blocking of receptor-ligand interaction** - Approximately 3 - 15 µg/mL of this antibody will block 50% of the binding of 2.5 ng/mL of rhCD200/Fc to immobilized rhCD200/Fc chimera (100 µL of a 2 µg/mL solution was coated in each well) in a functional ELISA. At 50 µg/mL, this antibody will achieve > 90% blocking in the assay.

**Direct ELISA** - This antibody can be used at 0.5 - 1.0 µg/mL with the appropriate secondary reagents to detect human CD200 R1. The detection limit for rhCD200 R1 is approximately 0.5 ng/well.

**Optimal dilutions should be determined by each laboratory for each application.**