

## DESCRIPTION

|                           |                                                                                                                                                                                                                                                                             |
|---------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Species Reactivity</b> | Human                                                                                                                                                                                                                                                                       |
| <b>Specificity</b>        | Detects human CD200 R1 in direct ELISAs. In direct ELISAs, no cross-reactivity with recombinant mouse CD200 R1 is observed.                                                                                                                                                 |
| <b>Source</b>             | Monoclonal Mouse IgG <sub>2B</sub> Clone # 380529                                                                                                                                                                                                                           |
| <b>Purification</b>       | Protein A or G purified from hybridoma culture supernatant                                                                                                                                                                                                                  |
| <b>Immunogen</b>          | Mouse myeloma cell line NS0-derived recombinant human CD200 R1<br>Ala27-Leu266 (predicted)<br>Accession # NP_620161                                                                                                                                                         |
| <b>Conjugate</b>          | Alexa Fluor 405<br>Excitation Wavelength: 405 nm<br>Emission Wavelength: 421 nm                                                                                                                                                                                             |
| <b>Formulation</b>        | Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide<br><br>*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.

**Immunocytochemistry** Optimal dilution of this antibody should be experimentally determined.

## PREPARATION AND STORAGE

|                                |                                                                                                                   |
|--------------------------------|-------------------------------------------------------------------------------------------------------------------|
| <b>Shipping</b>                | The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below. |
| <b>Stability &amp; Storage</b> | 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 transmembrane protein in the immunoglobulin superfamily (1-3). The standard human CD200 R1 cDNA encodes a 325 amino acid (aa) precursor that includes a 28 aa signal sequence, a 215 aa extracellular domain (ECD), a 21 aa transmembrane segment, and a 61 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, human CD200 R1 shares 56% aa sequence identity with mouse and rat CD200 R1. 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. The protein expressed here contains a mature region that is identical to that of the standard form. There is an N-terminal extension of 25 aa that, in the standard form, is part of the signal sequence. In human, a separate CD200 R12 gene encodes a protein that shares 81% ECD aa identity with CD200 R11. In mouse, at least four genes for CD200 R1-like molecules have been described (4-6). CD200 R1 expression is restricted primarily to mast cells, basophils, macrophages, and dendritic cells (7-9), while its ligand, CD200, is widely distributed (10). Disruption of this receptor-ligand system by knockout of the CD200 gene in mice leads to increased macrophage number and activation and predisposition to autoimmune disorders (11). Association of CD200 with CD200 R1 takes place between their respective N-terminal Ig-like domains (12). The capacity of CD200 R1-like molecules to interact with CD200 is controversial (5, 13). CD200 R1 propagates inhibitory signals despite its lacking a cytoplasmic ITIM (immunoreceptor tyrosine-based inhibitory motif) (8, 9, 14, 15) CD200 R1-like molecules, in contrast, are potentially activating receptors by means of their association with DAP12 (4, 6).

## PRODUCT SPECIFIC NOTICES

This product is provided under an agreement between Life Technologies Corporation and R&D Systems, Inc., and the manufacture, use, sale or import of this product is subject to one or more US patents and corresponding non-US equivalents, owned by Life Technologies Corporation and its affiliates. The purchase of this product conveys to the buyer the non-transferable right to use the purchased amount of the product and components of the product only in research conducted by the buyer (whether the buyer is an academic or for-profit entity). The sale of this product is expressly conditioned on the buyer not using the product or its components (1) in manufacturing; (2) to provide a service, information, or data to an unaffiliated third party for payment; (3) for therapeutic, diagnostic or prophylactic purposes; (4) to resell, sell, or otherwise transfer this product or its components to any third party, or for any other commercial purpose. Life Technologies Corporation will not assert a claim against the buyer of the infringement of the above patents based on the manufacture, use or sale of a commercial product developed in research by the buyer in which this product or its components was employed, provided that neither this product nor any of its components was used in the manufacture of such product. For information on purchasing a license to this product for purposes other than research, contact Life Technologies Corporation, Cell Analysis Business Unit, Business Development, 29851 Willow Creek Road, Eugene, OR 97402, Tel: (541) 465-8300. Fax: (541) 335-0354.