

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human CD200 in ELISAs. In sandwich immunoassays, no cross-reactivity or interference with recombinant mouse CD200 is observed.
Source	Monoclonal Mouse IgG ₁ Clone # 325531
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Mouse myeloma cell line NS0-derived recombinant human CD200 Gln31-Gly232 Accession # P41217.3
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.

ELISA Capture (Matched Antibody Pair)	Optimal dilution of this antibody should be experimentally determined.
ELISA Detection (Matched Antibody Pair)	Optimal dilution of this antibody should be experimentally determined.
Blockade of Receptor-ligand Interaction	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, also known as OX-2, is a 45 kDa transmembrane immunoregulatory protein that belongs to the immunoglobulin superfamily (1, 2). The human CD200 cDNA encodes a 278 amino acid (aa) precursor that includes a 30 aa signal sequence, a 202 aa extracellular domain (ECD), a 27 aa transmembrane segment, and a 19 aa cytoplasmic domain. The ECD is composed of one Ig-like V-type domain and one Ig-like C2-type domain (3). A splice variant of CD200 has been described and has a truncated cytoplasmic tail. Within the ECD, human CD200 shares 76% aa sequence identity with mouse and rat CD200. CD200 is widely but not ubiquitously expressed (4). Its receptor (CD200R) is restricted primarily to mast cells, basophils, macrophages, and dendritic cells, which suggests myeloid cell regulation as the major function of CD200 (5-7). CD200 knockout mice are characterized by increased macrophage number and activation and are predisposed to autoimmune disorders (8). CD200 and CD200R associate *via* their respective N-terminal Ig-like domains (9). In myeloid cells, CD200R initiates inhibitory signals following receptor-ligand contact (6, 7, 10). In T cells, however, CD200 functions as a costimulatory molecule independent of the CD28 pathway (11). Several additional CD200R-like molecules have been identified in human and mouse, but their capacity to interact with CD200 is controversial (12, 13). Several viruses encode CD200 homologs which are expressed on infected cells during the lytic phase (14, 15). Like CD200 itself, viral CD200 homologs also suppress myeloid cell activity, enabling increased viral propagation (5, 14-16).

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.