

Active Recombinant Human CD200 protein, Fc/Avi-tagged, Biotinylated

Cat. No. CD200-052H **Lot. No.** (See product label)

SPECIFICATION

Product Overview

Biotinylated Recombinant Human CD200(Gln31-Gly232) protein, fused to Fc/Avi tag at the C-terminus, was expressed in HEK293 cells .

Species

Human

Source

HEK293

ProteinLength

Gln31-Gly232

Description

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

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(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).

Predicted N Terminal

No results obtained: Gln31 inferred from enzymatic pyroglutamate treatment revealing Val32

Form

Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose.

Bio-activity

Measured by its binding ability in a functional ELISA. When Recombinant Human CD200R1 Fc Chimera is immobilized at 2 µg/mL (100 µL/well), the concentration of Recombinant Human CD200 Fc Chimera Avi-tag that produces 50% of the optimal binding response is 2-10 ng/mL.

Molecular Mass

60-80 kDa, under reducing conditions

Endotoxin

<0.10 EU per 1 µg of the protein by the LAL method.

Purity

>95%, by SDS-PAGE visualized with Silver Staining and quantitative densitometry by Coomassie® Blue Staining.

Applications

Bioactivity

Storage

Use a manual defrost freezer and avoid repeated freeze-thaw cycles. 12 months from date of receipt, -20 to -70 °C as supplied. 1 month, 2 to 8 °C under sterile conditions after reconstitution. 3 months, -20 to -70 °C under sterile conditions after

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reconstitution.

Reconstitution Reconstitute at 500 µg/mL in PBS.

Conjugation Biotin

GENE INFORMATION

Gene Name [CD200](#) [CD200 molecule \[Homo sapiens \]](#)

Official Symbol [CD200](#)

Synonyms CD200; CD200 molecule; antigen identified by monoclonal MRC OX 2 , CD200 antigen , MOX1, MOX2; OX-2 membrane glycoprotein; MRC; OX 2; CD200 antigen; MRC OX-2 antigen; antigen identified by monoclonal MRC OX-2; MOX1; MOX2; OX-2;

Gene ID [4345](#)

mRNA Refseq [NM_001004196](#)

Protein Refseq [NP_001004196](#)

MIM [155970](#)

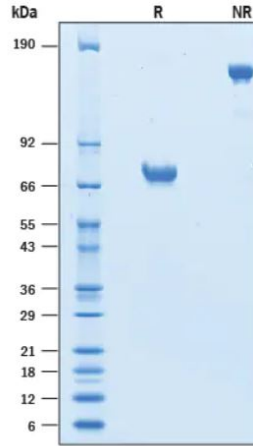
UniProt ID [P41217](#)

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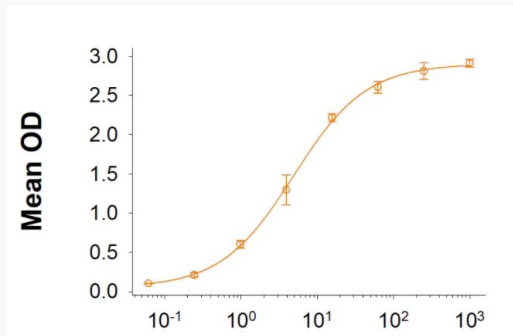
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SDS-PAGE




2 µg/lane Protein was resolved with SDS-PAGE under reducing (R) and non-reducing (NR) conditions and visualized by Coomassie® Blue staining.

Binding Activity



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