

Active Recombinant Cynomolgus Monkey CD200 protein, Fc-tagged

Cat. No. CD200-243C **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Cynomolgus Monkey CD200 (Gln56-Gly257) fused with Fc region of Human IgG1 at C-terminal was expressed in CHO.
Species	Cynomolgus
Source	CHO
ProteinLength	56-257 a.a.
Description	CD200, also known as OX-2, is a 45 kDa transmembrane immunoregulatory protein that belongs to the immunoglobulin superfamily. Mature cynomolgus CD200 consists of a 202 aa extracellular domain (ECD) with one Ig-like V-type domain and one Ig-like C2-type domain, a 27 aa transmembrane segment, and a 19 aa cytoplasmic domain. Within the ECD, cynomolgus CD200 shares 95%, 78%, and 78% aa sequence identity with human, mouse, and rat CD200, respectively. CD200 is widely but not ubiquitously expressed. Its receptor (CD200 R1) is restricted primarily to mast cells, basophils, macrophages, and dendritic cells, which suggests myeloid cell regulation as the major function of CD200. CD200 knockout mice are characterized by increased macrophage number and activation and are predisposed to autoimmune disorders. CD200 and CD200 R associate via their respective N-terminal Ig-like domains. In myeloid cells, CD200 R initiates inhibitory signals following receptor-ligand contact. In T cells, however, CD200 functions as a costimulatory molecule independent of the CD28 pathway. Several additional CD200 R-like molecules have

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been identified in human and mouse, but their capacity to interact with CD200 is controversial. Several viruses encode CD200 homologs which are expressed on infected cells during the lytic phase. Like CD200 itself, viral CD200 homologs also suppress myeloid cell activity, enabling increased viral propagation.

Predicted N Terminal	No results obtained. Gln56 inferred from enzymatic pyroglutamate treatment revealing Val57
Form	Lyophilized from a 0.2 µm filtered solution in PBS.
Bio-activity	Measured by its binding ability in a functional ELISA. When Recombinant Human CD200 R1 Fc Chimera is immobilized at 0.5 µg/mL (100 µL/well), the concentration of Recombinant Cynomolgus Monkey CD200 Fc Chimera that produces 50% of the optimal binding response is 5-35 ng/mL.
Molecular Mass	Predicted Molecular Mass: 49 kDa SDS-PAGE: 64-73 kDa, reducing conditions
Endotoxin	<0.1 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.
Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. 12 months from date of receipt, -20 to -70 centigrade as supplied. 1 month, 2 to 8 centigrade under sterile conditions after reconstitution. 3 months, -20 to -70 centigrade under sterile conditions after reconstitution.
Reconstitution	Reconstitute at 1 mg/mL in PBS.

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GENE INFORMATION

Gene Name	CD200 CD200 molecule [<i>Macaca fascicularis</i>]
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Official Symbol	CD200
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Synonyms	CD200; CD200 molecule
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Gene ID	102146004
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