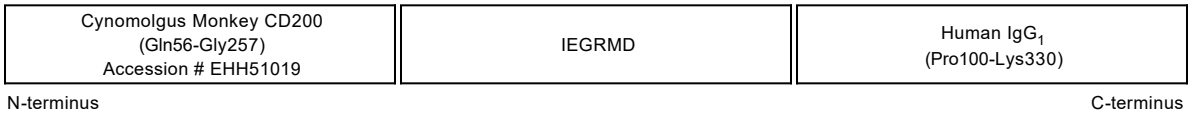
Recombinant Cynomolgus Monkey CD200 Fc Chimera

Catalog Number: 9274-CD

DESCRIPTION

Source

Chinese Hamster Ovary cell line, CHO-derived



N-terminal Sequence Analysis	No results obtained. Gln56 inferred from enzymatic pyroglutamate treatment revealing Val57
Structure / Form	Disulfide-linked homodimer
Predicted Molecular Mass	49 kDa

SPECIFICATIONS

SDS-PAGE	64-73 kDa, reducing conditions
Activity	Measured by its binding ability in a functional ELISA. When Recombinant Human CD200 R1 Fc Chimera (Catalog # 3414-CD) 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.
Endotoxin Level	<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.
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS. See Certificate of Analysis for details.

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 1 mg/mL in PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.
Stability & 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 reconstitution.

BACKGROUND

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 (2). 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 (3-5). CD200 knockout mice are characterized by increased macrophage number and activation and are predisposed to autoimmune disorders (6). CD200 and CD200 R associate via their respective N-terminal Ig-like domains (7). In myeloid cells, CD200 R initiates inhibitory signals following receptor-ligand contact (4, 5, 8). In T cells, however, CD200 functions as a costimulatory molecule independent of the CD28 pathway (9). Several additional CD200 R-like molecules have been identified in human and mouse, but their capacity to interact with CD200 is controversial (10, 11). Several viruses encode CD200 homologs which are expressed on infected cells during the lytic phase (12, 13). Like CD200 itself, viral CD200 homologs also suppress myeloid cell activity, enabling increased viral propagation (3, 12-14).

References:

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