Recombinant Cynomolgus Monkey CD160 Fc Chimera

Catalog Number: 10197-CD

DESCRIPTION

Source

Chinese Hamster Ovary cell line, CHO-derived cynomolgus monkey CD160 protein

Cynomolgus Monkey CD160 (Ile27-Ser159) Accession # EHH50231	IEGRMD	Human IgG_1 (Pro100-Lys330)

N-terminus C-terminus

N-terminal Sequence Analysis	Ile27
Structure / Form	Disulfide-linked homodimer
Predicted Molecular Mass	41 kDa

SPECIFICATIONS

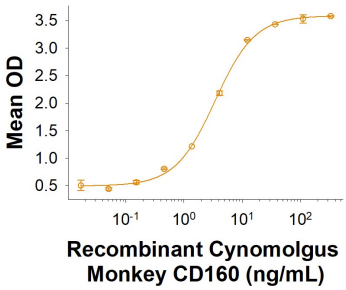
SDS-PAGE	40-60 kDa, under reducing conditions
Activity	Measured by its binding ability in a functional ELISA. When Recombinant Mouse HVEM/TNFRSF14 Fc Chimera (Catalog # 2516-HV) is immobilized at 0.5 µg/mL (100 µL/well), the concentration of Recombinant Cynomolgus Monkey CD160 Fc Chimera that produces 50% of the optimal binding response 1.5-9 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 with Trehalose. See Certificate of Analysis for details.

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 500 µg/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.

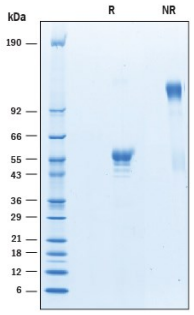
DATA

Binding Activity



When Recombinant Mouse HVEM/TNFRSF14 Fc Chimera (Catalog # 2516-HV) is immobilized at 0.5 µg/mL, Recombinant Cynomolgus Monkey CD160 Fc Chimera (Catalog # 10197-CD) binds with an ED_{50} of 1.5-9 ng/mL.

SDS-PAGE



2 µg/lane of Recombinant Cynomolgus Monkey CD160 Fc Chimera (Catalog # 10197-CD) was resolved with SDS-PAGE under reducing (R) and non-reducing (NR) conditions and visualized by Coomassie® Blue staining, showing bands at 40-60 kDa and 80-120 kDa, respectively.

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Catalog Number: 10197-CD

BACKGROUND

CD160, also known as Natural killer cell receptor BY55, is a GPI-anchored member of the Ig superfamily that is expressed on both cytolytic lymphocytes and some unstimulated $CD4^+$ T cells (1-4). In human, it is expressed principally on non-myeloid hematopoietic cells (1, 5-7). It is synthesized as a preproprotein with 181 amino acids including a 24 amino acid (aa) signal sequence, a 135 aa CD160 chain that contain one 96 aa V-type Ig-like domain, and a 22 aa propeptide that is cleaved to generate a GPI-linkage at Ser159. The GPI-linked CD160 is known to be cleaved by phospholipases and generate an 80 kDa (presumably trimeric) band in SDS-PAGE (1, 8). Mature cynomolgus CD160 shares 91% aa sequence identity with human CD160. CD160 is known to bind to HLA-G1, HLA-C, and HVEM (6, 9, 10). Upon engagement, it is reported to associate with CD2 *in* cis under certain conditions (11, 12). The effects of CD160 ligation appear to be context dependent. When expressed on endothelial cells, CD160 binding to HLA-G1 initiates apoptosis, and thus impacts angiogenesis (6). When expressed on CD56DIM NK cells, CD160 signaling in response to HLA-C binding promotes IFN-gamma, TNF-alpha, and IL-6 secretion (10). When up-regulated on $CD4^+$ T cells following activation, CD160 engagement by HVEM (expressed by APC) serves to block a simultaneous LIGHT stimulation of HVEM that promotes receptor expression and cytokine release (1, 2, 7, 13).

References:

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