Recombinant Cynomolgus Monkey CD58/LFA-3 Fc Chimera

Catalog Number: 11432-CD

DESCRIPTION

Source

Chinese Hamster Ovary cell line, CHO-derived cynomolgus monkey CD58/LFA-3 protein

Cynomolgus Monkey CD58 (Ile29-Arg215) Accession # XP_005542263.1	IEGRMD	Human IgG_1 (Pro100-Lys330)

N-terminus C-terminus

N-terminal Sequence Analysis	Ile29
Structure / Form	Disulfide-linked homodimer
Predicted Molecular Mass	48 kDa

SPECIFICATIONS

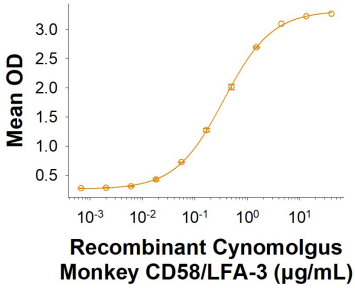
SDS-PAGE	70-78 kDa, under reducing conditions.
Activity	Measured by its binding ability in a functional ELISA. Recombinant Cynomolgus Monkey CD58/LFA-3 Fc Chimera (Catalog # 11432-CD) binds to recombinant Human CD2 Fc Chimera Protein (Catalog # 1856-CD) with a ED_{50} of 0.150-2.00 µg/mL.
Endotoxin Level	<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.

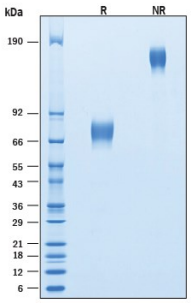
DATA

Binding Activity



Recombinant Cynomolgus Monkey CD58/LFA-3 Fc Chimera Protein Binding Activity. Measured by its binding ability in a functional ELISA. Recombinant Cynomolgus Monkey CD58/LFA-3 Fc Chimera Protein (Catalog # 11432-CD) binds to recombinant Human CD2 Fc Chimera Protein (Catalog # 1856-CD) with a ED_{50} of 0.150-2.00 µg/mL.

SDS-PAGE



Recombinant Cynomolgus Monkey CD58/LFA-3 Fc Chimera Protein SDS-PAGE. 2 µg/lane of Recombinant Cynomolgus Monkey CD58/LFA-3 Fc Chimera Protein (Catalog # 11432-CD) was resolved with SDS-PAGE under reducing (R) and non-reducing (NR) conditions and visualized by Coomassie® Blue staining, showing bands at 70-78 kDa and 140-160 kDa, respectively.

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BACKGROUND

T cells require a signal induced by the engagement of the T cell receptor and a "co-stimulatory" signal(s) through distinct T cell surface molecules for optimal T cell expansion and activation. Many cell-bound receptor-ligand pairs have now been shown to be involved in T cell co-stimulation including CD58/CD2 in humans and CD48/CD2 in mice and rats. CD58, also known as lymphocyte function-associated antigen (LFA-3), belongs to the CD2 family of the immunoglobulin superfamily (1). CD58 is widely expressed on hematopoietic and non-hematopoietic human tissue and has been found on leukocytes, erythrocytes, endothelial cells, epithelial cells and fibroblasts of human origin (2). No mouse or rat homolog of CD58 has as of yet been identified. CD58 has only one known ligand, CD2. CD2 is expressed on T cells, NK cells and dendritic cells (2-4). CD2 ligation by CD58 has been shown to mediate T cell adhesion, T cell activation, T cell cytokine production and T cell and NK cells cytotoxic activity (1, 3, 5, 6). In dendritic cells, CD2 engagement increases MHC Class II, CD40, CD80, CD86, CD58 and CCR7 and induces IL-1 beta and IL-12 cytokine secretion (4). Blockade of CD58-CD2 interaction on NK cells resulted in diminished production of IFN-γ and TNF-α in response to Human cytomegalovirus (HCMV)-infected cells (7). Expression of CD58 was significantly increased in anisomycin-treated hepatocellular carcinoma (HCC), and may be critical player in NK-mediated immunotherapeutic effects (8).

References:

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