

Recombinant Human CD2 Protein (His Tag)

Catalog Number: PKSH031320

Note: Centrifuge before opening to ensure complete recovery of vial contents.

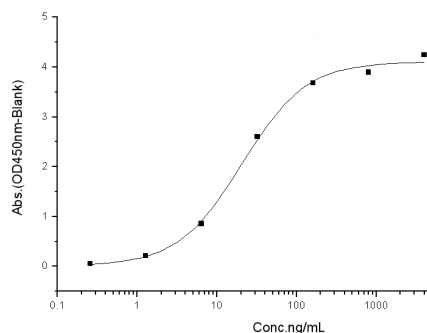
Description

Species	Human
Source	HEK293 Cells-derived Human CD2 protein Met 1-Asp 209, with an C-terminal His
Calculated MW	22.7 kDa
Observed MW	37 kDa
Accession	NP_001758.2
Bio-activity	Immobilized human CD2-His at 10 µg/ml (100 µl/well) can bind human CD58-Fc, The EC ₅₀ of human CD58-Fc is 0.04-0.1 µg/ml.

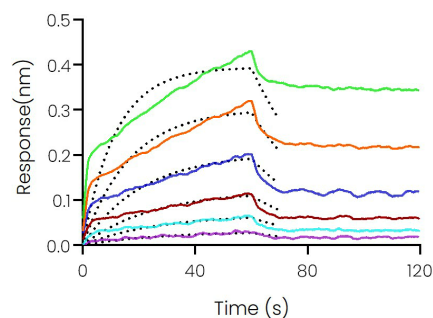
Properties

Purity	> 97 % as determined by reducing SDS-PAGE.
Endotoxin	< 1.0 EU per µg of the protein as determined by the LAL method.
Storage	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.
Shipping	This product is provided as lyophilized powder which is shipped with ice packs.
Formulation	Lyophilized from sterile PBS, pH 7.4 Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual.
Reconstitution	Please refer to the printed manual for detailed information.

Data



Measured by its binding ability in a functional ELISA. Immobilized Human CD2 His (Cat: PKSH031320) at 2 µg/ml (100 µl/well) can bind Human CD58 hFc (Cat: PKSH030847), the EC₅₀ of Human CD58 hFc is 7.0-28.0 ng/mL.



Loaded Recombinant Human CD58/LFA-3 Protein, hFc Tag (Cat: PKSH030847) on ProA Biosensor, can bind Recombinant Human CD2 Protein, His Tag (Cat: PKSH031320) with an affinity constant of 1.36 µM as determined in BLI assay (Sartorius Octet RED384).

Background

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T-cell surface antigen CD2, also known as T-cell surface antigen T11/Leu-5, and SRBC, is a single-pass type I membrane protein. It contains one Ig-like C2-type domain and one Ig-like V-type domain. CD2 is a cell adhesion molecule expressed on T cells and is recognized as a target for CD48 (rats) and CD58 (humans). CD2 has been shown to set quantitative thresholds in T cell activation both in vivo and in vitro. Further, intracellular CD2 signaling pathways and networks are being discovered by the identification of several cytosolic tail binding proteins. CD2 interacts with lymphocyte function-associated antigen (LFA-3) and CD48/BCM1 to mediate adhesion between T-cells and other cell types. CD2 is implicated in the triggering of T-cells, the cytoplasmic domain of CD2 is implicated in the signaling function. The complex of CD2 and CD58 also plays an important role in enhancing the adhesion of T lymphocytes to target cells, and promoting hyperplasia and activation of T lymphocytes. As a cell surface glycoprotein, CD2 expressed on most human T cells and natural killer (NK) cells and plays an important role in mediating cell adhesion in both T-lymphocytes and in signal transduction.

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