Bioactive, Recombinant Human CD2 Protein Dimer, His-Avi Tag
Product Code: CSP-24095-03
For Research Use Only (RUO)

Protein Name
CD2

Alternate Name(s)
T-cell surface antigen T11/Leu-5, lymphocyte function-associated antigen-2, LFA-2, lymphocyte function-associated antigen-3 receptor, LFA-3 receptor, sheep red blood cell receptor, SRBC, T11, CD2 molecule, erythrocyte receptor, rosette receptor

Protein Construct
CD2 dimer protein contains a CD2 extracellular domain (UniProt# P06729) fused with a dimer motif followed by a tandem His-Avi tag at the C-terminus. Expressed in HEK293T cell line.

SDS-Page Molecular Weight
62 kDa. The migration range of the dimer with glycosylation under non-reducing conditions is 120-190 kDa on SDS PAGE.

Shipping Conditions
Frozen Dry Ice

Expression Host
HEK293T

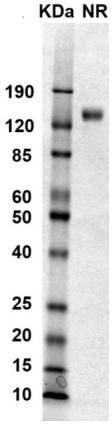
Purity
Greater than 90% dimer form as determined by SDS-PAGE under non-reducing condition

Amino Acid Range
K25-D209

Formulation
0.22μm filtered PBS, pH 7.4

Stability & Storage
-80^{0}C

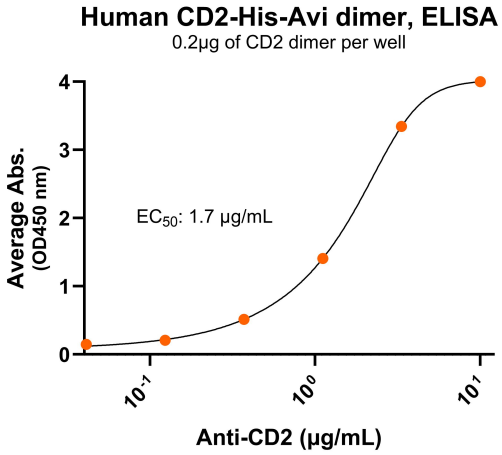
SDS-PAGE



MW: Molecular Weight marker reduced condition
NR: CD2 dimer under non-reducing condition

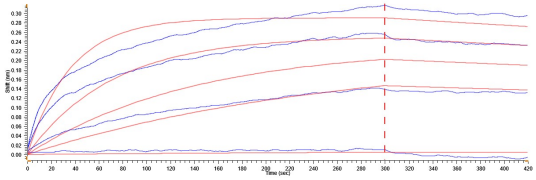
The migration range of the dimer with glycosylation under non-reducing conditions is 120-190 kDa on SDS PAGE.

Bioactivity – Antibody Binding



Immobilized human CD2-His-Avi dimer protein (CSP-24095-03) at 2 μg/mL (100 μL/well) can bind anti-human CD2 monoclonal antibody with half maximal effective concentration (EC50) range of 0.8-3.3 μg/mL (QC tested).

Bioactivity – BLI



Human CD58/LFA-3, human Fc tag on an Anti-Human IgG Fc Gen II probe can bind human CD2 dimer protein His-Avi tag (Cat. No. CSP-24095-03) with a KD of 7.5-30 nM as determined by BLI.

Background

Human cluster of differentiation 2 (CD2), is a Type I transmembrane glycoprotein and a member of the immunoglobulin superfamily. CD2 is also known as T-cell surface antigen T11/Leu-5, lymphocyte function-associated antigen-2 (LFA-2), lymphocyte function-associated antigen-3 receptor (LFA-3 receptor), sheep red blood cell receptor (SRBC), CD2 molecule, erythrocyte receptor, and rosette receptor. CD2 contains an extracellular domain with two immunoglobulin-like domains (Ig-like), a transmembrane domain, and a cytoplasmic domain. CD2 is expressed on human T cells and natural killer (NK) cells. CD2 interacts with itself or other adhesion molecules, such as lymphocyte function-associated antigen-3 (LFA-3/CD58), to play an important role in mediating cell adhesion and signal transduction. CD2 is expressed in a variety of cancer cells, including T-cell lymphomas and leukemias and is also found in B-cell neoplasms. CD2 expression can serve as a prognostic biomarker for these types of cancer. CD2 is an emerging target of cancer therapeutics.