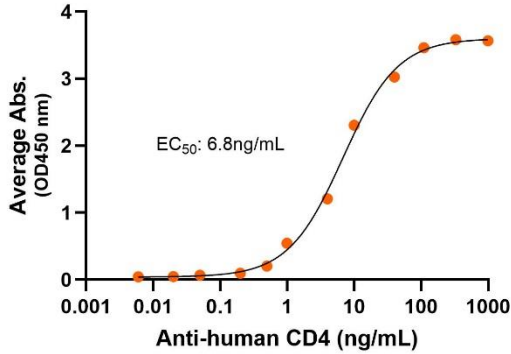


### Bioactivity – Antibody Binding

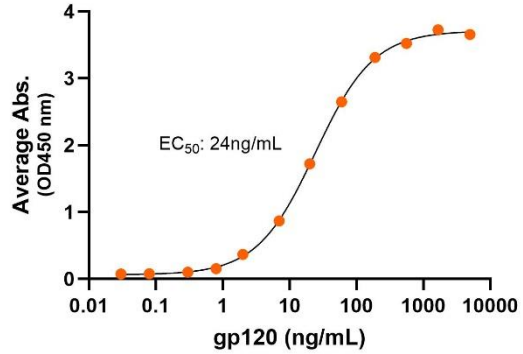
**Human CD4 dimer, ELISA**  
 0.2µg of CD4 dimer per well



Immobilized human CD4 dimer protein, His Tag (Cat. No. CSP-24004) at 2 µg/mL (100 µL/well) can bind anti-human CD4 monoclonal antibody with half maximal effective concentration (EC<sub>50</sub>) range of 3.46 – 13.85 ng/mL (QC tested).

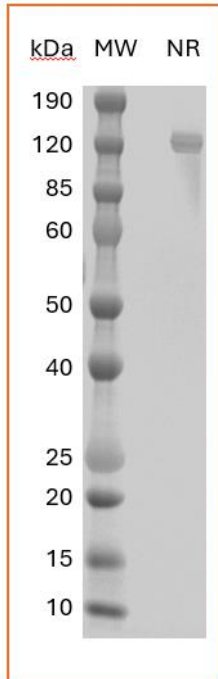
### Bioactivity – Ligand Binding

**Human CD4 dimer, ELISA**  
 0.2µg of CD4 dimer per well



Immobilized human CD4 dimer protein, His Tag (Cat. No. CSP-24004) at 2 µg/mL (100 µL/well) can bind HIV-1 envelope glycoprotein gp120 with half maximal effective concentration (EC<sub>50</sub>) range of 11.45 – 45.8 ng/mL (QC tested). The gp120 D368R mutation diminishes the binding to CD4 dimer protein as expected.

### SDS-PAGE



MW: Molecular Weight marker reduced condition  
 NR: CD4 dimer under non-reducing condition

Migration range of the dimer under non-reducing condition is 100-150kDa on SDS PAGE



**Bioactive, Human CD4 Dimer, His Tag**  
Product Code: CSP-24004  
For Research Use Only

**Expression Host**  
HEK293T

**Protein Name**  
Human CD4

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

**Alternate Name(s)**  
IL16R

**Protein Construct**  
CD4 dimer contains CD4 extracellular 4-domains (UniProt# A0A4Y5UGE4) with a homodimer motif and a His tag at the C-terminus. Expressed in HEK293T cells.

**Amino Acid Range**  
Lys26-Phe396

**SDS Page Molecular Weight**  
112 kDa; Migration range of the dimer under non-reducing condition is 100-150kDa on SDS PAGE

**Formulation**  
0.2µm filtered PBS, pH 7.4

**Shipping Conditions**  
Frozen Dry Ice

**Stability & Storage**  
-80°C

## Background

CD4 is type 1 integral membrane glycoprotein protein on T cell surface, also known as known as T-cell surface antigen T4/Leu-3. CD4 contains an extracellular domain, a transmembrane domain and a cytoplasmic domain. The extracellular domain has 4 immunoglobulin-like (Ig-like) domains: one Ig-like V-type domain and three Ig-like C2-type domains. The CD4 extracellular domain is responsible for MHC class-II antigen/T-cell receptor interaction and T cell activation. CD4 is also known as interleukin 16 receptor (IL16R). The IL16 cytokine binds CD4 to activate a downstream signalling cascade. CD4 is also the primary receptor for the human immunodeficiency virus (HIV) envelope glycoprotein gp120 to mediate HIV infection and entry into host T cells, as the underlying cause of acquired immune deficiency syndrome (AIDS).