

**Product Name:** Biotinylated, Bioactive Human CD4 Protein Dimer, His-Avi Tag

**Product Code:** BCSP-24004-03

**FOR RESEARCH USE ONLY (RUO)**

**Protein Name:** Biotinylated CD4

**Alternate Name(s):** IL16R

**Expression Host**  
HEK293T

**Amino Acid Range**  
K26-F396

**Protein Construct**

Biotinylated CD4 dimer contains CD4 extracellular 4-domains (UniProt# A0A4Y5UGE4) with a homodimer motif and a tandem His-Avi tag at the C-terminus. Expressed in HEK293T cell line.

**SDS-Page Molecular Weight**

103 kDa. Migration range of the dimer under non-reducing condition is 85-120kDa on SDS PAGE

**Purity**

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

**Formulation**

0.22µm filtered PBS, pH 7.4

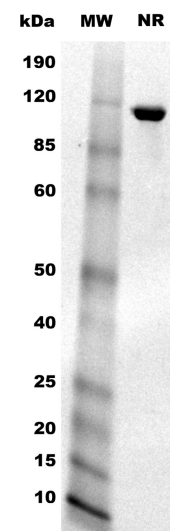
**Stability & Storage**

-80°C

**Shipping Conditions**

Frozen Dry Ice

**SDS-PAGE**

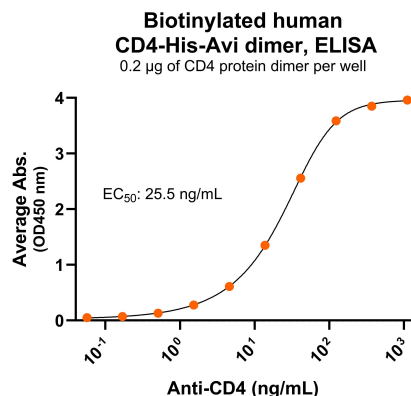


MW: Molecular Weight marker reduced condition

NR: CD4 dimer under non-reduced condition

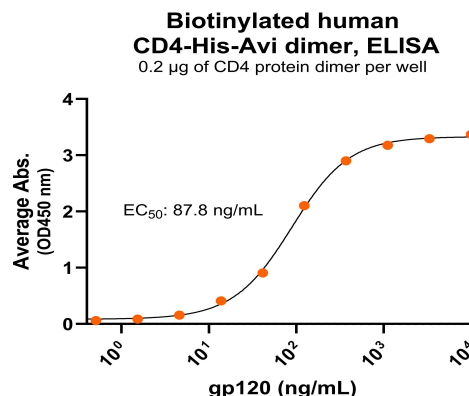
Migration range of the dimer under non-reducing condition is 85-120kDa on SDS PAGE

## Antibody Binding



Immobilized biotinylated human CD4 protein dimer, His-Avi Tag (Cat. No. BCSP-24004-03) 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 12.8-51 ng/mL (QC tested).

## Ligand Binding



Immobilized biotinylated human CD4 protein dimer, His-Avi Tag (Cat. No. BCSP-24004-03) at 2 µg/mL (100 µL/well) can bind human gp120 protein with half maximal effective concentration (EC<sub>50</sub>) range of 43.9-175.6 ng/mL (QC tested).

## 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).