

## Technical Data Sheet

### Human CD4 (C-Fc-Avi)

**Catalog Number:** 811001, 811002  
**Size:** 25 ug, 100 ug  
**Target Name:** CD4, CD4mut, LEU3  
**Regulatory Status:** RUO

#### Product Details

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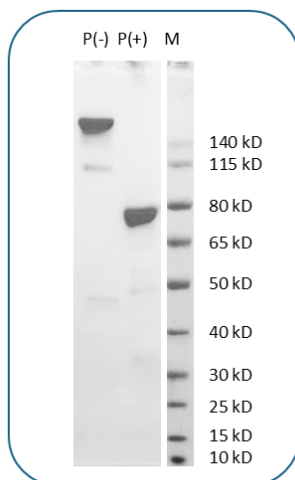
**Application:** ELISA, BLI  
**Format:** Liquid, Purified  
**Expression Host:** CHO  
**Species:** Human  
**Sources:** Recombinant Human CD4 Protein ( Lys26-Trp390) with C-terminus Fc-Avi-tag is expressed in CHO cell.  
**Accession Number:** P01730  
**Molecular Weight:** The protein has a predicted molecular weight of 69 kDa. Under DTT-reducing conditions, it migrates at approximately 80 kDa on SDS-PAGE.  
**Affinity Tag:** C-Fc-Avi  
**Purity:** >95% based on SDS-PAGE under reducing condition  
**Formulation:** 1xPBS buffer, pH7.4, 0.22 µm filtered  
**Endotoxin level:** Not tested  
**Protein Concentration:** 25µg size is bottled at 0.2mg/mL concentration. 100 µg size is supplied at a lot-specific concentration.  
**Storage and Handling:** Briefly centrifuge the vial upon receipt. An unopened vial can be stored at 4°C for up to 2 weeks, or at -20°C or below for up to six months. The protein may be further diluted to 0.1 mg/mL using 0.22 µm-filtered PBS buffer (pH 7.4). For long-term storage, the diluted stock solution should be aliquoted and stored at ≤ -70°C to minimize freeze-thaw cycles. If additional dilution is required, carrier proteins such as FBS or BSA should be added to maintain protein stability.

#### Background Information

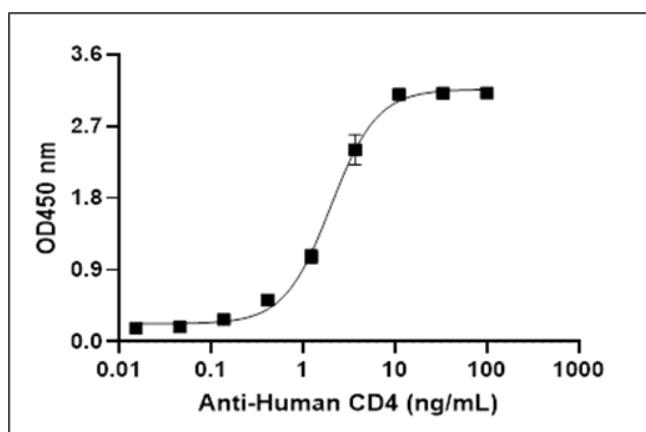
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CD4 is a single-pass type I transmembrane glycoprotein belonging to the immunoglobulin superfamily, composed of one Ig-like V-type and three Ig-like C2-type domains. It is expressed on helper T cells, regulatory T cells, monocytes, macrophages, and dendritic cells, functioning as a co-receptor for the T-cell receptor (TCR) by binding MHC class II molecules on antigen-presenting cells to enhance TCR signaling. CD4 also serves as the primary receptor for HIV-1, binding to viral gp120 to mediate viral entry. HIV-1 viral protein U (VpU) binds to the membrane-proximal region of CD4's cytoplasmic domain, promoting its degradation in the endoplasmic reticulum and preventing surface expression, aiding viral immune evasion. CD4 plays a central role in T-cell activation and HIV infection and is a key focus in immunological and virological research.

## Product Data



Human CD4 (C-Fc-Avi) Protein on SDS-PAGE under non-reducing and reducing conditions. The gel was stained for 1 hour with BlinkBlue Protein Staining Buffer (Catalog 700102). The purity of this protein appears to be greater than 95%.



Human CD4 Protein (C-Fc-Avi) is coated at 1 ug/mL (100ng/well). Anti-human CD4 antibody (Clone OKT4) can bind human CD4 protein in dose-dependent manner with the ED50 of 2-10 ng/mL