

Technical Data Sheet

APC conjugated Human CD4 (C-Fc)

Catalog Number: 811203, 811204

Size: 25 ug, 100 ug

Target Name: CD4, CD4mut, LEU3

Regulatory Status: RUO

Product Details

Application: FC

Format: Liquid, APC

Expression Host: CHO

Species: Human

Sources: Recombinant Human CD4 Protein (Lys26-Trp390) with C-terminus Fc-tag is expressed in CHO cell and conjugated to APC.

Accession Number: P01730

Molecular Weight: The protein has a predicted molecular weight of 66.9 kDa. Under DTT-reducing conditions, it migrates at approximately 80 kDa on SDS-PAGE prior to conjugation.

Affinity Tag: C-Fc

Formulation: 1xPBS buffer, pH7.4, 0.09% NaN₃ with a carrier protein

Endotoxin level: Not tested

Protein Concentration: 25µg size is bottled at 0.1mg/mL concentration. 100 µg size is bottled at lot specific concentration.

Storage and Handling: Briefly centrifuge the vial upon receipt. An unopened vial may be stored at 2–8°C for up to six months.

Background Information

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.