

Human CellExp™ CD4, human recombinant

CATALOG #: 7834-20 20 µg
7834-100 100 µg

ALTERNATE NAMES: CD4, CD-4, CD4mut, CD-4mut

SOURCE: HEK 293 cells (Lys 26 – Trp 390)

PURITY: ≥ 98% by SDS-PAGE gel

MOL. WEIGHT: This protein rhCD4 is fused with Fc fragment of human IgG1 at the C-terminus, has a calculated MW of 68 kDa expressed. The predicted N-terminus is Lys26. Protein migrates as 80 kDa in reduced SDS-PAGE due to glycosylation.

ENDOTOXIN LEVEL: < 1.0 EU per µg of the rhCD4 by the LAL method.

FORM: Lyophilized

FORMULATION: Lyophilized from 0.22 µm filtered solution in 50 mM Tris, 100 mM glycine, pH 7.5. Normally Mannitol or Trehalose are added as protectants before lyophilization.

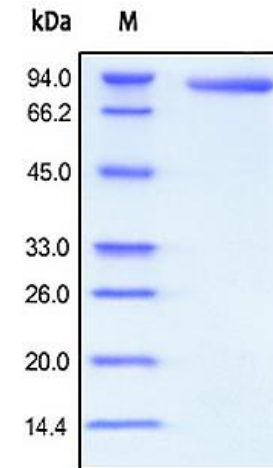
STORAGE CONDITIONS: Store at -20°C. After reconstitution, aliquot and store at -20°C or -70°C for up to 3 months. Avoid repeated freezing and thawing cycles. No activity loss was observed after storage in lyophilized state for 1 year (4°C) and after reconstitution under sterile conditions for 3 months (-70°C).

RECONSTITUTION: Centrifuge the vial prior to opening. Reconstitute in PBS, pH 7.4. Do not vortex.

DESCRIPTION: Cluster of Differentiation 4 (CD4), also known as T-cell surface antigen T4/Leu-3 (LEU-3) and CD4mut, is a single-pass type I membrane glycoprotein, and is a member of the immunoglobulin superfamily. CD4 expressed on the surface of T helper cells, monocytes, macrophages, and dendritic cells. It has four immunoglobulin domains (D1 to D4) that are exposed on the extracellular surface of the cell: D1 and D3 resemble immunoglobulin variable (IgV) domains. D2 and D4 resemble immunoglobulin constant (IgC) domains. CD4 is a co-receptor that assists the T cell receptor (TCR) with an antigen-presenting cell. Using its portion that resides inside the T cell, CD4 amplifies the signal generated by the TCR by recruiting an enzyme known as the tyrosine kinase Lck, which is essential for activating many

molecules involved in the signaling cascade of an activated T cell. CD4 also interacts directly with MHC class II molecules on the surface of the antigen-presenting cell using its extracellular domain. The extracellular domain adopts an immunoglobulin-like beta-sandwich with seven strands in 2 beta sheets, in a Greek key topology. CD4 has also been shown to interact with SPG21, Lck and Protein unc-119 homolog. CD4 is a primary receptor used by HIV-1 to gain entry into host T cells. HIV infection leads to a progressive reduction of the number of T cells possessing CD4 receptors. Therefore, medical professionals refer to the CD4 count to decide when to begin treatment for HIV-infected patients.

BIOLOGICAL ACTIVITY: Measured by its ability to bind with HIV-1 gp120 in a functional ELISA.



Human recombinant CD4. The purity of rhCD4 was determined by SDS-PAGE of reduced rhCD4 and staining overnight with Coomassie Blue.

RELATED PRODUCTS:

- Human CellExp™ CD223, human recombinant (Cat. No. 7278-10, -50)
- Human CellExp™ CD71, human recombinant (Cat. No. 7279-10, -50)
- Human CellExp™ CD273, human recombinant (Cat. No. 7369-10, -50)
- Human CellExp™ CD33, human recombinant (Cat. No. 7370-10, -50)
- Human CellExp™ CD36, human recombinant (Cat. No. 7371-10, -50)
- Human CellExp™ CD87, human recombinant (Cat. No. 7372-20, -100)
- Human CellExp™ CD360, human recombinant (Cat. No. 7373-20, -100)
- Human CellExp™ CD244, human recombinant (Cat. No. 7374-10, -50)

FOR RESEARCH USE ONLY! Not to be used in humans.

