

## CD4 Protein, Human, Recombinant (aa 26-390, His & Avi), Biotinylated

### General Information

Synonyms:	CD4;CD4 receptor;EU3;CD4mut;CD4 molecule;CD4 antigen (p55)
Protein Construction:	Lys26-Trp390
Species:	Human
Expression Host:	HEK293 Cells
Accession:	P01730
Molecular Weight:	43.6 kDa (predicted). Due to glycosylation, the protein migrates to 50-60 kDa based on Tris-Bis PAGE result.

### QC Testing

Biological Activity:	Immobilized Anti-CD4 Antibody, hFc Tag at 1µg/ml (100µl/well) on the plate. Dose response curve for Biotinylated Human CD4, His Tag with the EC50 of 12.7ng/ml determined by ELISA.
Purity:	> 95% as determined by Tris-Bis PAGE; > 95% as determined by HPLC
Endotoxin:	< 1.0 EU/µg of the protein as determined by the LAL method.
Formulation:	Lyophilized from a solution filtered through a 0.22 µm filter, containing PBS (pH 7.4). Typically, 8% trehalose is incorporated as a protective agent before lyophilization.

### Preparation and Storage

#### Reconstitution:

Reconstitute the lyophilized protein in distilled water. The product concentration should not be less than 100 µg/ml. Before opening, centrifuge the tube to collect powder at the bottom. After adding the reconstitution buffer, avoid vortexing or pipetting for mixing.

#### Stability & Storage:

It is recommended to store recombinant proteins at -20°C to -80°C for future use. Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

#### Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

### Protein Background

CD4, also known as L3T4, T4, and W3/25, is an approximately 55 kDa type I transmembrane glycoprotein that is expressed predominantly on thymocytes and a subset of mature T lymphocytes. It is a standard phenotype marker for the identification of T cell populations. Integral membrane glycoprotein that plays an essential role in the immune response and serves multiple functions in responses against both external and internal offenses. In T-cells, functions primarily as a coreceptor for MHC class II molecule:peptide complex.

Reference

Lam S , Bollard C. T-cell therapies for HIV[J]. Immunotherapy, 2013, 5(4):407-414.

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