

Recombinant Human Soluble CD4

Certificate of Analysis and Data Sheet

➤ Source: E.Coli	➤ Catalog No. CTK-304
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➤ **Background:**

CD4 antigens are members of the immunoglobulin supergene family and are implicated as associative recognition elements in MHC (Major Histocompatibility Complex) Class II-restricted immune responses. On T-lymphocytes they define the helper/inducer subset. CD4 antigens also serve as HIV receptors, binding directly to the envelope protein gp120 on HIV. Thymocytes which are CD4 (+) and CD8 (-) produce factors such as IL-4, IL-5, IL-10 and IFN-gamma.

➤ **Description :**

Recombinant Human sCD4 produced in Baculovirus is a single, glycosylated polypeptide chain containing 365 amino acids and having a non glycosylated molecular mass of 40,000 Dalton. As a result of glycosylation the sCD4 migrates as a 46,000 dalton protein on standard SDS-PAGE. Detected By Western Immunoblots anti-CD4 monoclonal antibody.

Recombinant soluble CD4 is purified by proprietary chromatographic techniques.

➤ **Physical Appearance:**

Sterile Filtered White lyophilized (freeze-dried) powder.

➤ **Formulation:**

Recombinant Human Soluble CD-4 is lyophilized from a concentrated (1mg/ml) solution in water containing 0.5X PBS.

➤ **Solubility:**

It is recommended to reconstitute the lyophilized sCD4 in sterile 18M Ω -cm H₂O not less than 100 μ g/ml, which can then be further diluted to other aqueous solutions.

➤ **Stability:**

Lyophilized sCD4 although stable at room temperature for 3 weeks, should be stored desiccated below -18° C. Upon reconstitution sCD4 should be stored at 4° C between 2-7 days and for future use below -18° C. For long-term storage it is recommended to add a carrier protein (0.1% HSA or BSA).

Please avoid freeze-thaw cycles.

➤ **Purity:**

Greater than 95.0% as determined by:

(a) Analysis by RP-HPLC.

(b) Anion-exchange FPLC.

(c) Analysis by reducing and non-reducing SDS-PAGE Silver Stained.

➤ **Dimers and aggregates:**

Less than 1% as determined by silver-stained SDS-PAGE gel analysis.

➤ **Biological Activity:**

This Recombinant Human Soluble CD-4 is fully biologically active when compared to standard. Immune reactive in ELISA using monoclonal anti CD4 in gp120 capture ELISA assays.

➤ **Endotoxin:**

Less than 0.1 ng/μg (IEU/μg) of soluble CD4.

➤ **Protein content:**

Protein quantitation was carried out by two independent methods:

1. UV spectroscopy at 280 nm.

2. Analysis by RP-HPLC, using a calibrated solution of CD4 as a Reference Standard.

➤ **Usage:**

This material is offered for research, laboratory or further evaluation purposes.