

Recombinant Human Cytotoxic T-Lymphocyte Associated Antigen-4/Fc Chimera

Certificate of Analysis and Data Sheet

➤ Source: E.Coli	➤ Catalog No. CTK-366
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➤ **Background:**

CTLA-4 is expressed in low copy number by T-cells only after activation, but it binds CD28-ligand with approximately 20-fold higher affinity than CD28. A soluble form of the extracellular domain of CTLA-4 has been shown to bind CD28-ligand with high avidity and to suppress T-cell-dependent antibody responses in vivo. Large doses of this soluble protein also suppress responses to a second immunization.

➤ **Description :**

Recombinant Human Cytotoxic T-Lymphocyte Associated Antigen-4 produced in E.Coli is a homodimeric, non-glycosylated, polypeptide chain containing a total molecular mass of 80 kDa. Each subunit (40kDa) is fused to a polypeptide linker to the Fc portion of Human IgG1.

Recombinant Human CTLA-4 is purified by proprietary chromatographic techniques.

➤ **Physical Appearance:**

Sterile Filtered White Lyophilized (freeze-dried) powder.

➤ **Formulation:**

Recombinant CTLA-4 was lyophilized with no additives.

➤ **Solubility:**

It is recommended to reconstitute the lyophilized CTLA4 in sterile 18MΩ-cm H₂O not less than 100μg/ml, which can then be further diluted to other aqueous solutions.

➤ **Stability:**

Lyophilized CTLA4 although stable at room temperature for 3 weeks, should be stored desiccated below -18⁰C. Upon reconstitution CTLA-4 should be stored at 4⁰C between 2-7 days and for future use below -18⁰C. 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 gel.

➤ **Amino acid sequence:**

The sequence of the amino acids was determined and was found to be: Lys-Ala-Met-His-Val.

➤ **Dimers and aggregates:**

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

➤ **Biological Activity:**

This Recombinant Human Cytotoxic T-Lymphocyte Associated Antigen-4 is fully biologically active when compared to standards.

➤ **Endotoxin:**

Less than 0.1 ng/μg (IEU/μg) of CTLA-4.

➤ **Protein content:**

Protein quantitation was carried out by two independent methods:

1. UV spectroscopy at 280.
2. Analysis by RP-HPLC, using a standard solution of Human CTLA-4 as a Reference Standard.

➤ **Usage:**

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