

Human CTLA-4/CD152 Protein

Cat. No. CTL-HM241

Description

Source	Recombinant Human CTLA-4/CD152 Protein is expressed from HEK293 with hFc tag at the C-Terminus. It contains Lys36-Asp161.
Accession	P16410-1
Molecular Weight	The protein has a predicted MW of 40.1 kDa. Due to glycosylation, the protein migrates to 50-55 kDa based on Tris-Bis PAGE result.
Endotoxin	Less than 1EU per µg by the LAL method.
Purity	> 95% as determined by Tris-Bis PAGE > 95% as determined by HPLC

Formulation and Storage

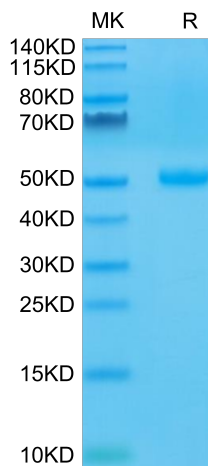
Formulation	Lyophilized from 0.22µm filtered solution in PBS (pH 7.4). Normally 8% trehalose is added as protectant before lyophilization.
Reconstitution	Centrifuge the tube before opening. Reconstituting to a concentration more than 100 µg/ml is recommended. Dissolve the lyophilized protein in distilled water.
Storage	-20 to -80°C for 12 months as supplied from date of receipt. -20 to -80°C for 3-6 months in unopened state after reconstitution. 2-8°C for 2-7 days after reconstitution. Recommend to aliquot the protein into smaller quantities for optimal storage. Please minimize freeze-thaw cycles.

Background

CTLA-4 (cytotoxic T-lymphocyte-associated protein 4), also known as CD152, is a protein receptor that, functioning as an immune checkpoint, downregulates immune responses. CTLA4 is constitutively expressed in regulatory T cells but only upregulated in conventional T cells after activation – a phenomenon which is particularly notable in cancers. It acts as an "off" switch when bound to CD80 or CD86 on the surface of antigen-presenting cells.

Assay Data

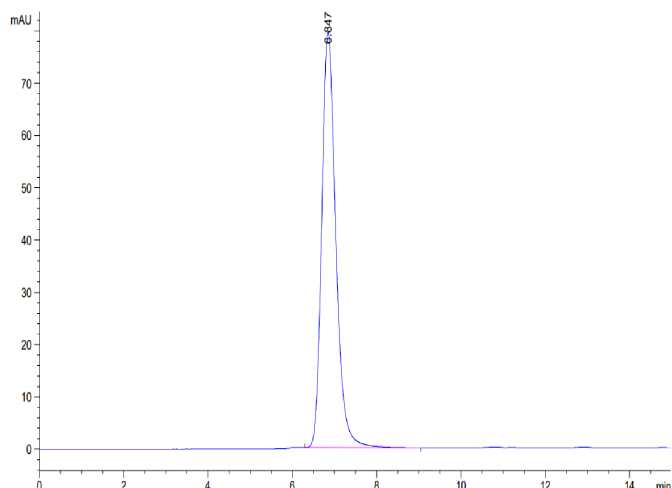
Tris-Bis PAGE



Human CTLA-4 on Tris-Bis PAGE under reduced condition. The purity is greater than 95%.

SEC-HPLC

Assay Data

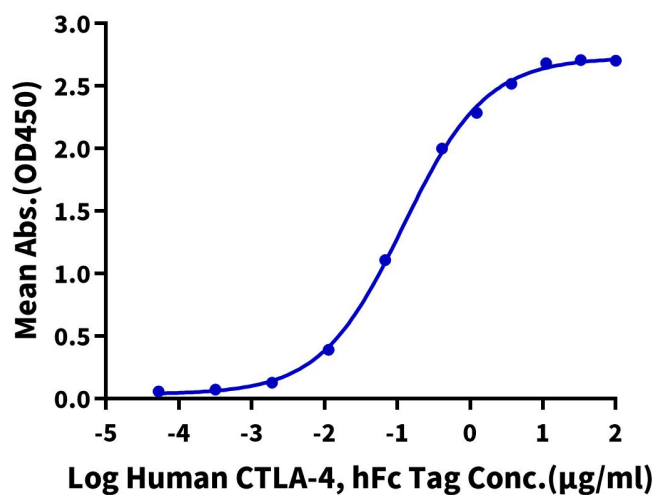


The purity of Human CTLA-4 is greater than 95% as determined by SEC-HPLC.

ELISA Data

Human CTLA-4, hFc Tag ELISA

0.05µg Human B7-2, His Tag Per Well

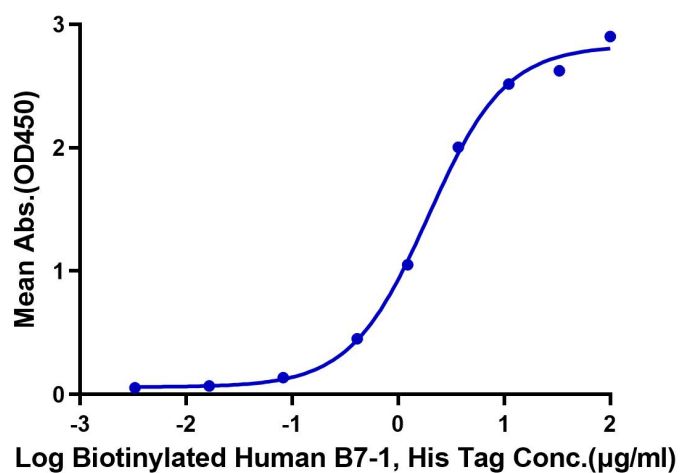


Immobilized Human B7-2, His Tag at 0.5µg/ml (100µl/Well) on the plate. Dose response curve for Human CTLA-4, hFc Tag with the EC50 of 0.12µg/ml determined by ELISA (QC Test).

ELISA Data

Human CTLA-4, hFc Tag ELISA

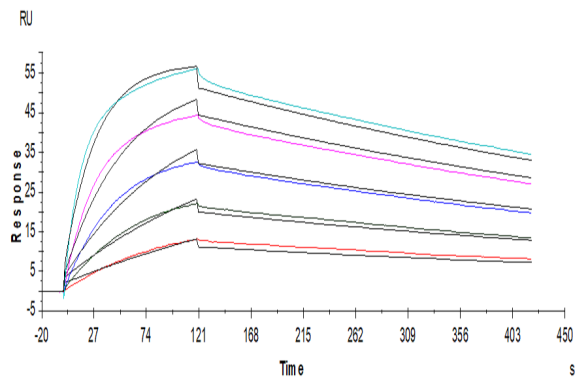
0.2µg Human CTLA-4, hFc Tag Per Well



Immobilized Human CTLA-4, hFc Tag at 2µg/ml (100µl/well) on the plate. Dose response curve for Biotinylated Human B7-1, His Tag with the EC50 of 1.9µg/ml determined by ELISA.

Assay Data

SPR Data



Human B7-1, His Tag captured on CM5 Chip via Anti-His Antibody can bind Human CTLA-4, hFc Tag with an affinity constant of 1.1nM as determined in SPR assay (Biacore T200).