# Biotinylated Mouse CTLA-4 / CD152 Protein, Fc,Avitag™ (MALS verified)

Catalog # CT4-M82F3



## **Synonym**

CTLA4,CD152

#### Source

Biotinylated Mouse CTLA-4 Protein, Fc,Avitag(CT4-M82F3) is expressed from human 293 cells (HEK293). It contains AA Glu 36 - Phe 162 (Accession # P09793-1).

Predicted N-terminus: Glu 36

## **Molecular Characterization**

CTLA-4(Glu 36 - Phe 162) Fc(Pro 100 - Lys 330) Avi P09793-1 P01857

This protein carries a human IgG1 Fc tag at the C-terminus, followed by an Avi tag (Avitag<sup>TM</sup>).

The protein has a calculated MW of 42.1 kDa. The protein migrates as 55-65 kDa when calibrated against <u>Star Ribbon Pre-stained Protein Marker</u> under reducing (R) condition (SDS-PAGE) due to glycosylation.

## Labeling

Biotinylation of this product is performed using Avitag<sup>TM</sup> technology. Briefly, the single lysine residue in the Avitag is enzymatically labeled with biotin.

### **Protein Ratio**

Passed as determined by the HABA assay / binding ELISA.

## Endotoxin

Less than 1.0 EU per µg by the LAL method.

## **Purity**

>90% as determined by SDS-PAGE.

>90% as determined by SEC-MALS.

#### **Formulation**

Lyophilized from  $0.22~\mu m$  filtered solution in 50~mM Tris, 100~mM Glycine, 25~mM Arginine, 150~mM NaCl, pH7.5 with trehalose as protectant.

Contact us for customized product form or formulation.

#### Reconstitution

Please see Certificate of Analysis for specific instructions.

For best performance, we strongly recommend you to follow the reconstitution protocol provided in the CoA.

### Storage

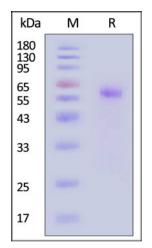
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

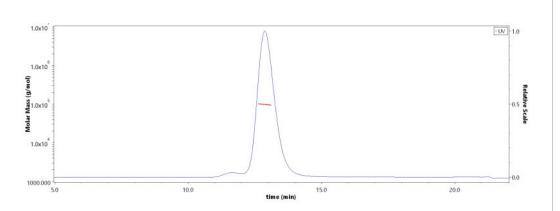
## **SDS-PAGE**



Biotinylated Mouse CTLA-4 Protein, Fc, Avitag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 90% (With <u>Star Ribbon Pre-stained Protein Marker</u>).

## **Bioactivity-ELISA**

## **SEC-MALS**



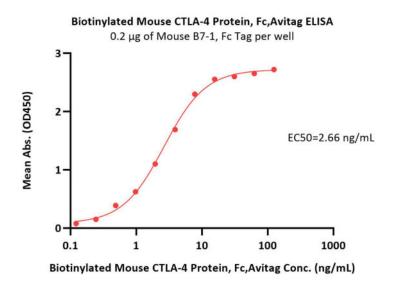
The purity of Biotinylated Mouse CTLA-4 Protein, Fc, Avitag (Cat. No. CT4-M82F3) is more than 90% and the molecular weight of this protein is around 90-110 kDa verified by SEC-MALS.

Report

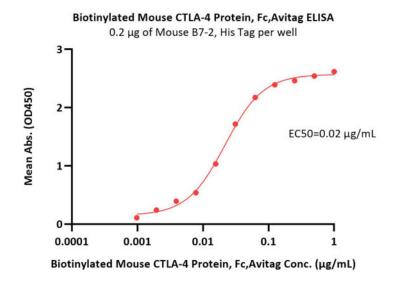
# Biotinylated Mouse CTLA-4 / CD152 Protein, Fc,Avitag™ (MALS verified)







Immobilized Mouse B7-1, Fc Tag (Cat. No. CD0-M5259) at 2  $\mu$ g/mL (100  $\mu$ L/well) can bind Biotinylated Mouse CTLA-4 Protein, Fc,Avitag (Cat. No. CT4-M82F3) with a linear range of 0.1-8 ng/mL (QC tested).



Immobilized Mouse B7-2, His Tag (Cat. No. CD6-M52H0) at 2  $\mu$ g/mL (100  $\mu$ L/well) can bind Biotinylated Mouse CTLA-4 Protein, Fc,Avitag (Cat. No. CT4-M82F3) with a linear range of 0.001-0.031  $\mu$ g/mL (Routinely tested).

## Background

CTLA-4 (Cytotoxic T-Lymphocyte Antigen 4) is also known as CD152 (Cluster of differentiation 152), is a protein receptor that downregulates the immune system. CTLA4 is a member of the immunoglobulin superfamily, which is expressed on the surface of Helper T cells and transmits an inhibitory signal to T cells. The protein contains an extracellular V domain, a transmembrane domain, and a cytoplasmic tail. Alternate splice variants, encoding different isoforms. CTLA4 is similar to the T-cell co-stimulatory protein, CD28, and both molecules bind to CD80 and CD86, also called B7-1 and B7-2 respectively, on antigen-presenting cells. CTLA4 transmits an inhibitory signal to T cells, whereas CD28 transmits a stimulatory signal. Intracellular CTLA4 is also found in regulatory T cells and may be important to their function. Fusion proteins of CTLA4 and antibodies (CTLA4-Ig) have been used in clinical trials for rheumatoid arthritis.

# **Clinical and Translational Updates**

Please contact us via <u>TechSupport@acrobiosystems.com</u> if you have any question on this product.

