



### Synonym

CTLA4,CD152

### Source

Human CTLA-4, Fc Tag(CT4-H5255) is expressed from human 293 cells (HEK293). It contains AA Ala 37 - Ser 160 (Accession # [P16410-1](#)).

Predicted N-terminus: Ala 37

### Molecular Characterization

CTLA-4(Ala 37 - Ser 160) NP_005205.2	Fc(Pro 100 - Lys 330) P01857
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This protein carries a human IgG1 Fc tag at the C-terminus.

The protein has a calculated MW of 39.9 kDa. The protein migrates as 45-55 kDa under reducing (R) condition, and 90 kDa under non-reducing (NR) condition (SDS-PAGE) due to glycosylation.

### Endotoxin

Less than 1.0 EU per µg by the LAL method.

### Purity

>98% as determined by SDS-PAGE.

>90% as determined by SEC-MALS.

### Formulation

Lyophilized from 0.22 µm filtered solution in Tris with Glycine, Arginine and 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

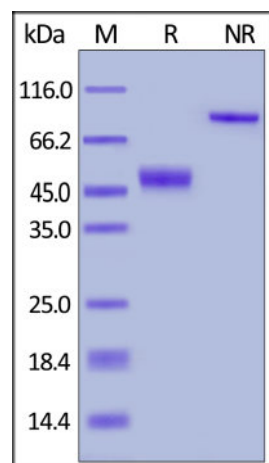
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

*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.

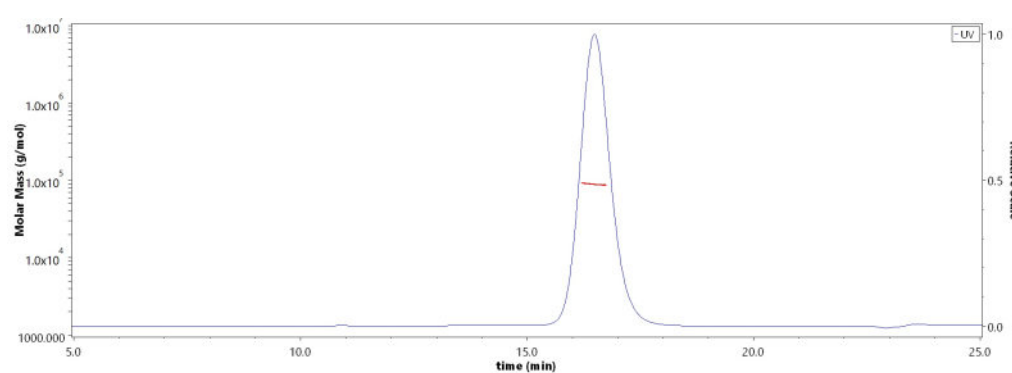
### SDS-PAGE



Human CTLA-4, Fc Tag on SDS-PAGE under reducing (R) and non-reducing (NR) conditions. The gel was stained with Coomassie Blue. The purity of the protein is greater than 98%.

### Bioactivity-ELISA

### SEC-MALS

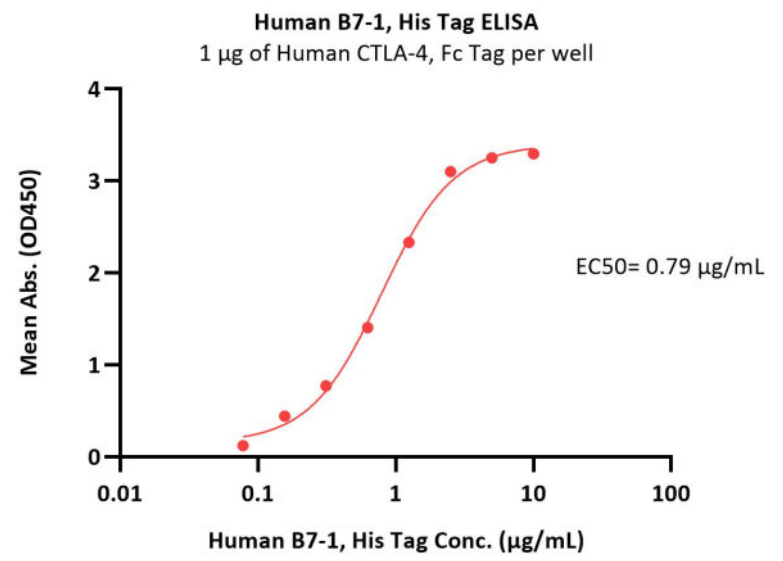
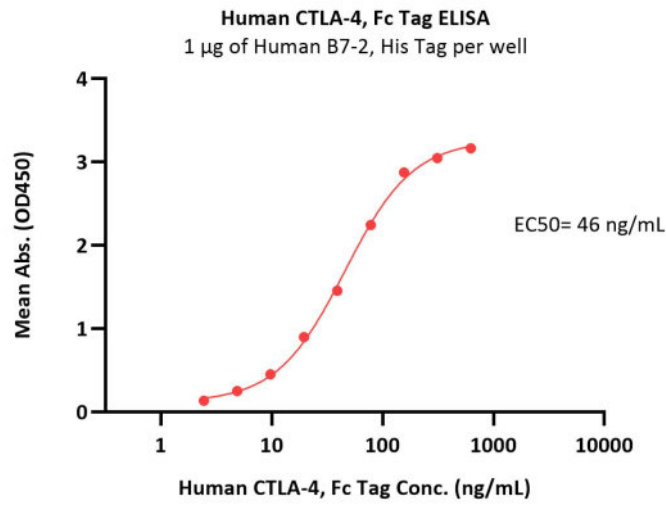


The purity of Human CTLA-4, Fc Tag (Cat. No. CT4-H5255) is more than 90% and the molecular weight of this protein is around 82-100 kDa verified by SEC-MALS.

[Report](#)

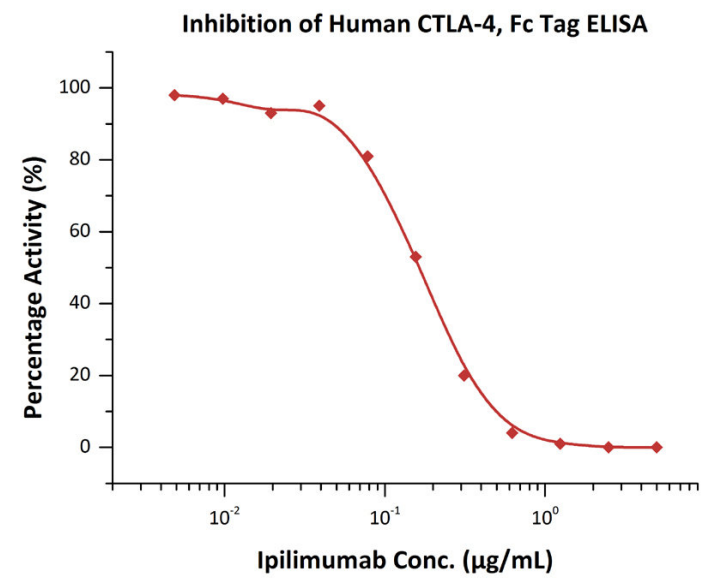
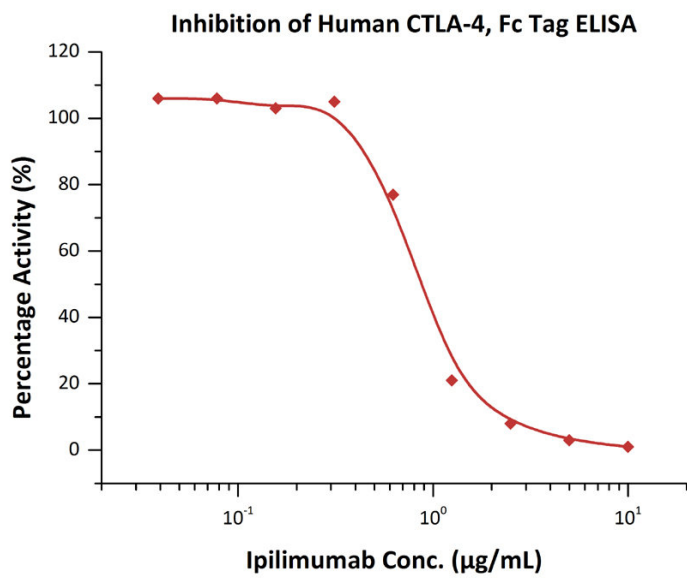
Discounts, Gifts,  
and more!





Immobilized Human B7-2, His Tag (Cat. No. CD6-H5223) at 10 µg/mL (100 µL/well) can bind Human CTLA-4, Fc Tag (Cat. No. CT4-H5255) with a linear range of 2-78 ng/mL (QC tested).

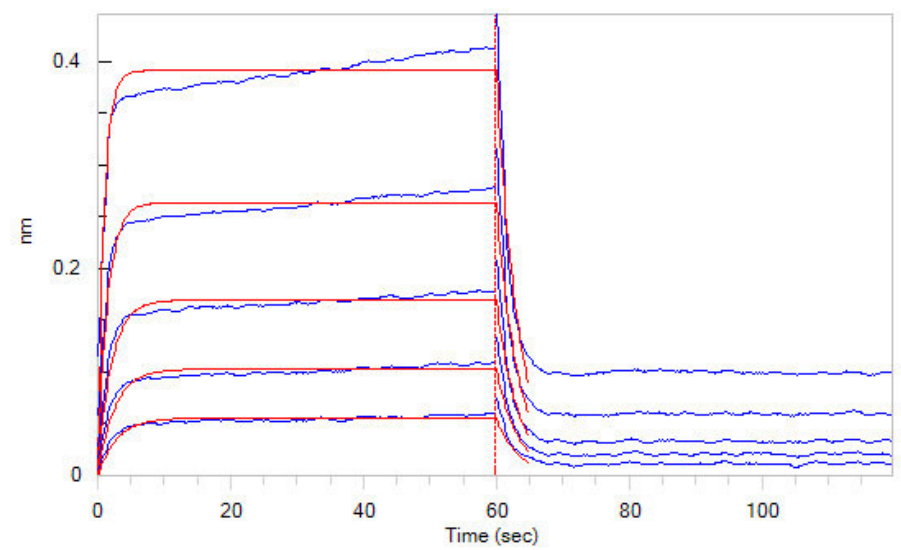
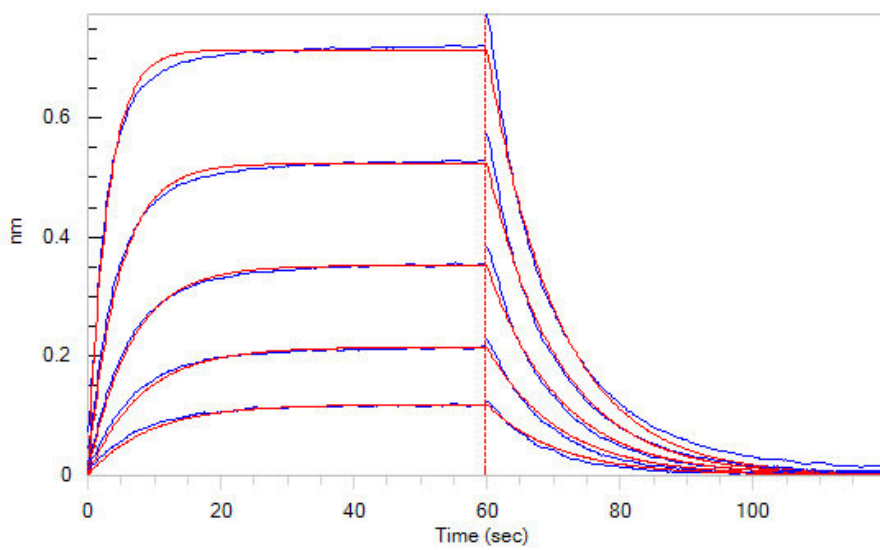
Immobilized Human CTLA-4, Fc Tag (Cat. No. CT4-H5255) at 10 µg/mL (100 µL/well) can bind Human B7-1, His Tag (Cat. No. B71-H5228) with a linear range of 0.156-1.25 µg/mL (Routinely tested).



Serial dilutions of Ipilimumab were added into Human CTLA-4, Fc Tag (Cat. No. CT4-H5255): Biotinylated Human B7-1, Fc,Avitag (Cat. No. B71-H82F2) binding reactions. The half maximal inhibitory concentration (IC50) is 0.8260 µg/mL (Routinely tested).

Serial dilutions of Ipilimumab were added into Human CTLA-4, Fc Tag (Cat. No. CT4-H5255): Biotinylated Human B7-2, Fc,Avitag, premium grade (Cat. No. CD6-H82F5) binding reactions. The half maximal inhibitory concentration (IC50) is 0.1701 µg/mL (Routinely tested).

**Bioactivity-BLI**



Loaded Human CTLA-4, Fc Tag (Cat. No. CT4-H5255) on Protein A Biosensor, can bind Human B7-1, His Tag (Cat. No. B71-H5228) with an

Loaded Human CTLA-4, Fc Tag (Cat. No. CT4-H5255) on Protein A Biosensor, can bind Human B7-2, His Tag (Cat. No. CD6-H5223) with an



## Human CTLA-4 / CD152 Protein, Fc Tag (MALS verified)

Catalog # CT4-H5255



BIOSYSTEMS  
**Acro**

affinity constant of 0.52  $\mu\text{M}$  as determined in BLI assay (ForteBio Octet Red96e) (Routinely tested).

affinity constant of 1.9  $\mu\text{M}$  as determined in BLI assay (ForteBio Octet Red96e) (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

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