

**Synonym**

CTLA4,CD152

**Source**

Rat CTLA-4 Protein, His Tag(CT4-R52H6) is expressed from human 293 cells (HEK293). It contains AA Ile 38 - Asp 161 (Accession # [Q62859-1](#)).

Predicted N-terminus: Ile 38

**Molecular Characterization**

CTLA-4(Ile 38 - Asp 161)  
Q62859-1 Poly-his

This protein carries a polyhistidine tag at the C-terminus

The protein has a calculated MW of 15.4 kDa. The protein migrates as 20-30 kDa under reducing (R) condition (SDS-PAGE) due to glycosylation.

**Endotoxin**

Less than 1.0 EU per µg by the LAL method.

**Purity**

>90% as determined by SDS-PAGE.

**Formulation**

Lyophilized from 0.22 µm filtered solution in PBS, pH7.4 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.*

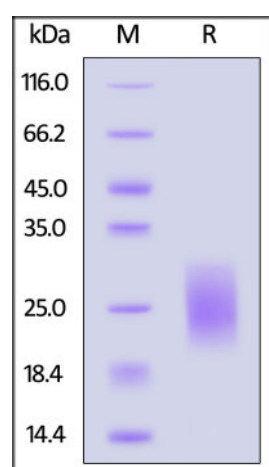
**Storage**

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:

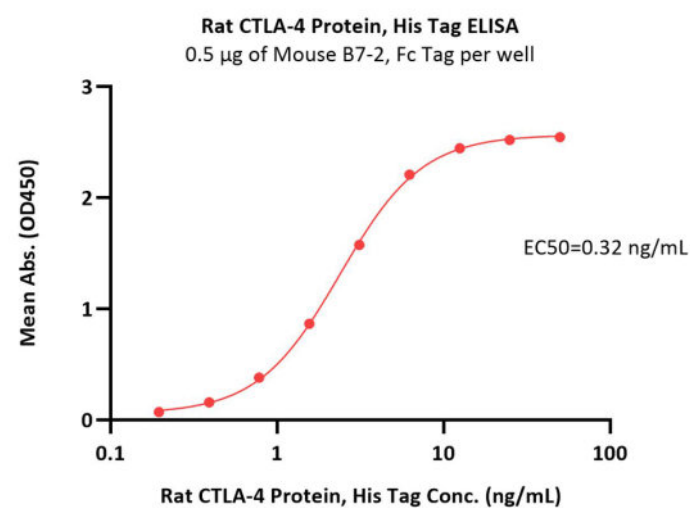
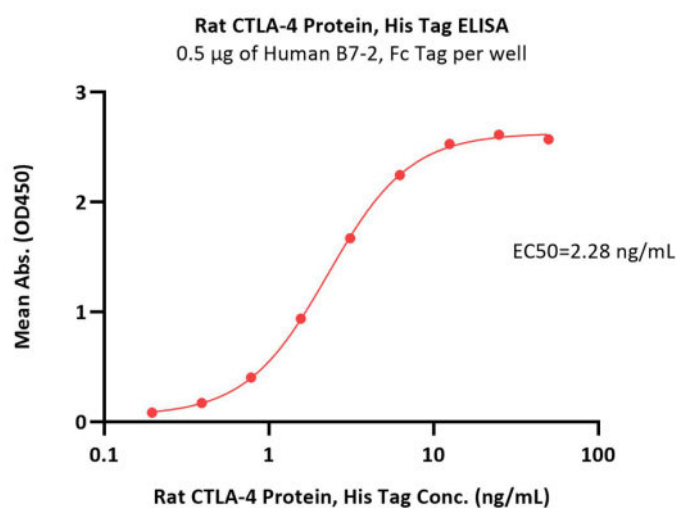
- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

**SDS-PAGE**

Rat CTLA-4 Protein, His Tag on SDS-PAGE under reducing (R) condition.

The gel was stained overnight with Coomassie Blue. The purity of the protein is greater than 90%.

**Bioactivity-ELISA**



Immobilized Human B7-2, Fc Tag (Cat. No. CD6-H5257) at 5 µg/mL (100 µL/well) can bind Rat CTLA-4 Protein, His Tag (Cat. No. CT4-R52H6) with a linear range of 0.2-6 ng/mL (QC tested).

Immobilized Mouse B7-2, Fc Tag (Cat. No. CD6-M5251) at 5 µg/mL (100 µL/well) can bind Rat CTLA-4 Protein, His Tag (Cat. No. CT4-R52H6) with a linear range of 0.2-6 ng/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 [TechSupport@acrobiosystems.com](mailto:TechSupport@acrobiosystems.com) if you have any question on this product.