Biotinylated Cynomolgus / Rhesus macaque CTLA-4 Protein, Avitag™,His Tag

Catalog # CT4-C82E5

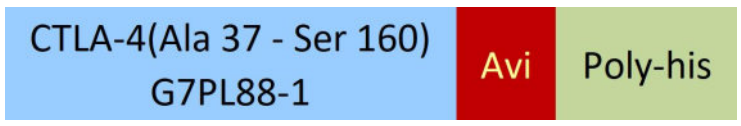
Synonym

CTLA4,CD152

Source

Biotinylated Cynomolgus / Rhesus macaque CTLA-4, Avitag,His Tag (CT4-C82E5) is expressed from human 293 cells (HEK293). It contains AA Ala 37 - Ser 160 (Accession # G7PL88-1). In the region Ala 37 - Ser 160, the AA sequence of Cynomolgus and Rhesus macaque CTLA-4 are homologus.
Predicted N-terminus: Ala 37

Molecular Characterization



This protein carries an Avi tag (Avitag™) at the C-terminus, followed by a polyhistidine tag.

The protein has a calculated MW of 15.9 kDa. The protein migrates as 20-26 kDa under reducing (R) condition (SDS-PAGE) due to glycosylation.

Labeling

Biotinylation of this product is performed using Avitag™ 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

>95% 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

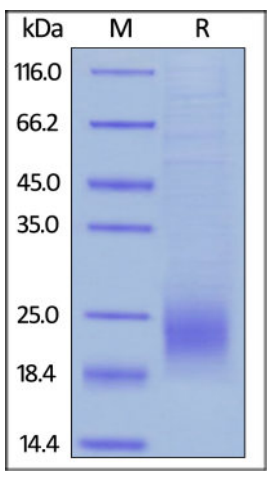
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

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



Biotinylated Cynomolgus / Rhesus macaque CTLA-4, Avitag,His Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95%.

Bioactivity-ELISA

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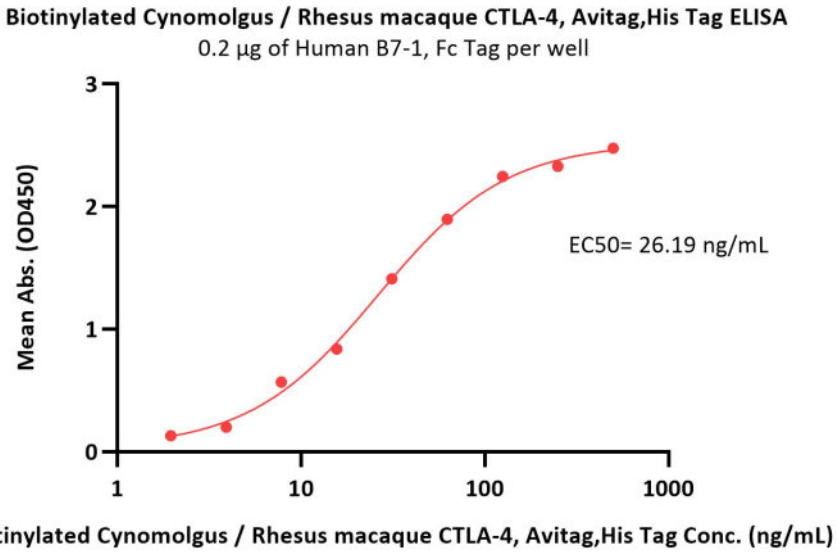
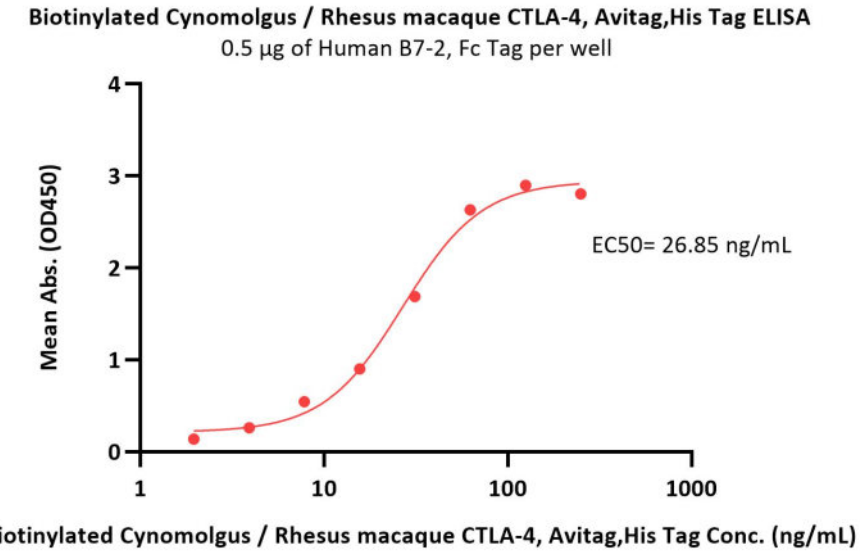


Immobilized Human B7-1, Fc Tag (Cat. No. B71-H5259) at 2 μg/mL (100 μL/well) can bind Biotinylated Cynomolgus / Rhesus macaque CTLA-4, Avitag,His Tag (Cat. No. CT4-C82E5) with a linear range of 2-31 ng/mL (QC tested).



Immobilized Human B7-2, Fc Tag (Cat. No. CD6-H5257) at 5 μg/mL (100 μL/well) can bind Biotinylated Cynomolgus / Rhesus macaque CTLA-4, Avitag,His Tag (Cat. No. CT4-C82E5) with a linear range of 2-63 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