# Human CTLA4 / CD152 Protein (His Tag), Biotinylated

**Catalog Number:** 11159-H08H-B

Sino Biological
Biological Solution Specialist

## General Information

**Gene Name Synonym:**

ALPS5; CD; CD152; CELIAC3; CTLA-4; GRD4; GSE; IDDM12

**Protein Construction:**

A DNA sequence encoding the human CTLA4 (NP_005205.2) extracellular domain (Met1-Phe162) was fused with the a polyhistidine tag at the C-terminus. The purified protein was biotinylated in vitro.

**Source:** Human

**Expression Host:** HEK293 Cells

## QC Testing

**Purity:** > 90 % as determined by SDS-PAGE

**Bio Activity:**

Immobilized Anti-CTLA4(BMS) Antibody, Human IgG1 at 2 μg/mL (100 μL/well) can bind Recombinant Human CTLA4 / CD152 Protein (His Tag), Biotinylated (Cat: 11159-H08H-B), the EC50 is 0.8-2.4 ng/mL (Routinely tested).

**Endotoxin:**

< 1.0 EU per μg protein as determined by the LAL method.

**Predicted N terminal:** Lys 36

**Molecular Mass:**

The recombinant human CTLA4 consists of 138 amino acids and has a predicted molecular mass of 15 kDa. As a result of glycosylation, the apparent molecular mass of human CTLA4 is approximately 22-26 kDa in SDS-PAGE under reducing conditions

**Formulation:**

Lyophilized from sterile PBS, pH 7.4.

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

## Usage Guide

**Stability & Storage:**
Samples are stable for twelve months from date of receipt at -20℃ to -80℃.

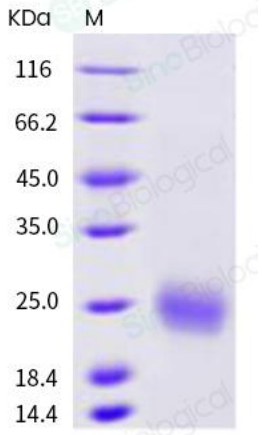
Store it under sterile conditions at -20℃ to -80℃ upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

**Avoid repeated freeze-thaw cycles.**

**Reconstitution:**

Detailed reconstitution instructions are sent along with the products.

**SDS-PAGE:**




## Protein Description

Cytotoxic T-lymphocyte protein 4, also known as CTLA4 and CD152, is a single-pass type I membrane protein and a member of the immunoglobulin superfamily. It is the second member of the CD28 receptor family. The ligands or counterreceptors for these two proteins are the B7 family members, CD8 (B7-1) and CD86 (B7-2). 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 play an important role in their functions. CD152 or cytotoxic T lymphocyte antigen-4 (CTLA-4) is an essential receptor involved in the negative regulation of T cell activation. Because of its profound inhibitory role, CD152 has been considered a sound susceptible candidate in autoimmunity and a persuasive target for cancer immunotherapy. In particular, recent evidence suggests that CD152 is also important in the homeostasis and function of a population of suppressive cells, termed regulatory T cells (Treg).

**References**

1.Slavik JM, et al. (1999) CD28/CTLA-4 and CD80/CD86 families: signaling and function. Immunol Res. 19(1): 1-24.
2.Holmberg D, et al. (2005) CTLA-4 (CD152) and its involvement in autoimmune disease. Autoimmunity. 38(3): 225-33.
3.Chin LT, et al. (2008) Immune intervention with monoclonal antibodies targeting CD152 (CTLA-4) for autoimmune and malignant diseases. Chang Gung Med J. 31(1): 1-15.