

# Cynomolgus / Rhesus CTLA4 / CD152 Protein (Fc Tag)

Catalog Number: 90213-C02H



Sino Biological  
Biological Solution Specialist

## General Information

### Gene Name Synonym:

CTLA4

### Protein Construction:

A DNA sequence encoding the cynomolgus/rhesus CTLA4 (Q9BDC4) (Met1-Asp161) was expressed with the Fc region of human IgG1 at the C-terminus. Cynomolgus and Rhesus CTLA4 sequences are identical.

**Source:** Cynomolgus

**Expression Host:** HEK293 Cells

## QC Testing

**Purity:** > 95 % as determined by SDS-PAGE

### Bio Activity:

Measured by its binding ability in a functional ELISA. Immobilized human B7-1-His (Cat:10698-H08H) at 10 µg/ml (100 µl/well) can bind Cynomolgus CTLA4-Fc (Cat:90213-C02H). The  $EC_{50}$  of Cynomolgus CTLA4-Fc is 6.0-14.5 ng/ml.

### Endotoxin:

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

### Stability:

Samples are stable for up to twelve months from date of receipt at -70 °C

**Predicted N terminal:** Ala 37

### Molecular Mass:

The recombinant cynomolgus/rhesus CTLA4 is a disulfide-linked homodimer. The reduced monomer comprises 366 amino acids and has a calculated molecular mass of 40.4 KDa. The apparent molecular mass of the protein is approximately 52 KDa respectively in SDS-PAGE.

### 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

### Storage:

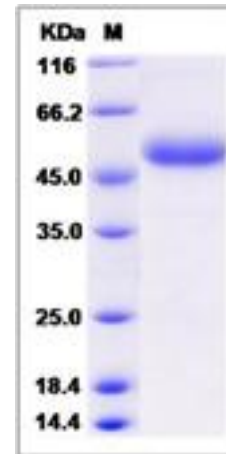
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

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, CD80 (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.

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