

Mouse CTLA4 / CD152 Protein (ECD,His Tag)



Sino Biological
Biological Solution Specialist

Catalog Number: 50503-M08H

General Information

Gene Name Synonym:

Cd152; Ctla-4; Ly-56

Protein Construction:

A DNA sequence encoding the extracellular domain of mouse CTLA4 (NP_033973.2) (Met 1-Phe 162) was expressed, with a polyhistidine tag at the C-terminus.

Source: Mouse

Expression Host: HEK293 Cells

QC Testing

Purity: ≥ 95 % as determined by SDS-PAGE. ≥ 95 % as determined by SEC-HPLC.

Bio Activity:

1. Immobilized Recombinant Mouse CD80 / B7-1 Protein (Fc Tag) (Cat:50446-M02H) at 2µg/mL (100µL/well) can bind Recombinant Mouse CTLA4 / CD152 Protein (ECD,His Tag) (Cat:50503-M08H), the EC50 is 1.0-3.0 ng/mL.
2. Measured by its ability to inhibit IL-2 secretion by stimulated Jurkat human acute T cell leukemia cells. The ED50 for this effect is 0.1-0.5µg/mL when stimulated with 1 µg/mL Recombinant Human B7-1/CD80.

Endotoxin:

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

Predicted N terminal: Glu 36

Molecular Mass:

The recombinant mouse CTLA4 consists of 138 amino acids and has a predicted molecular mass of 15.46 kDa. In SDS-PAGE under reducing conditions, the apparent molecular mass of mouse CTLA4 is approximately 25-30 kDa due to glycosylation.

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°C to -80°C.

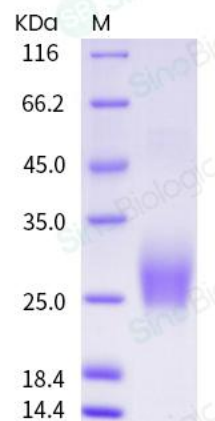
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

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.