Cynomolgus / Rhesus CTLA4 / CD152 Protein (His Tag)

Catalog Number: 90213-C08H

Sino Biological
Biological Solution Specialist

General Information

Gene Name Synonym:

CTLA4

Protein Construction:

A DNA sequence encoding the cynomolgus / rhesus CTLA4 (XP_005574071.1 & Q9BDC4) (Met1-Asp161) was expressed with a polyhistidine tag at the C-terminus. Cynomolgus and Rhesus CTLA4 sequences are identical.

Source: Cynomolgus, Rhesus

Expression Host: HEK293 Cells

QC Testing

Purity: > 95 % as determined by SDS-PAGE

Bio Activity:

1.Immobilized cynomolgus/rhesus CTLA4-His at 10 μg/ml (100 μl/well) can bind Cynomolgus CD80-Fc (Cat:90268-C02H), The EC50 of cynomolgus/rhesus CD80-Fc (Cat:90268-C02H) is 0.02-0.04 μg/ml.
2.Immobilized Anti-CTLA4(BMS) Antibody, Human IgG1 at 2 μg/mL (100 μL/well) can bind Recombinant Cynomolgus / Rhesus CTLA4 / CD152 Protein (His Tag) (Cat: 90213-C08H), the EC50 is 0.8-2.4 ng/mL (Routinely tested).

Endotoxin:

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

Predicted N terminal: Ala 37

Molecular Mass:

The recombinant cynomolgus / rhesus CTLA4 comprises 136 amino acids and has a calculated molecular mass of 14.9 KDa. The apparent molecular mass of it is approximately 24 and 21 KDa respectively in SDS-PAGE due to different 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℃ to -80℃.

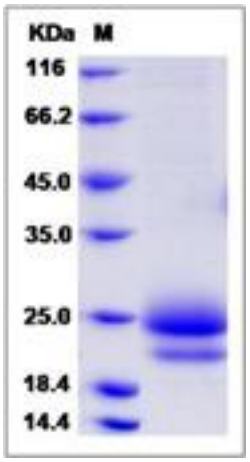
Store it under sterile conditions at -20℃ to -80℃ upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

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.