

Cynomolgus / Rhesus PD-L1 / B7-H1 / CD274 Protein (His Tag)

Catalog Number: 90251-C08H



Sino Biological
Biological Solution Specialist

General Information

Gene Name Synonym:

CD274

Protein Construction:

A DNA sequence encoding the cynomolgus / rhesus CD274 (XP_015292694.1 & XP_014973151.1) (Met1-Thr239) was expressed with a polyhistidine tag at the C-terminus. Cynomolgus and Rhesus CD274 sequences are identical.

Source: Cynomolgus, Rhesus

Expression Host: HEK293 Cells

QC Testing

Purity: ≥ 95 % as determined by SDS-PAGE. ≥ 85 % as determined by SEC-HPLC.

Bio Activity:

1. Measured by its ability to bind Cynomolgus PD1-Fc (Cat: 90311-C02H) in a functional ELISA.

2. Immobilized Anti-PD-L1 Antibody, Human IgG1 (Atezolizumab) at 2 µg/mL (100 µL/well) can bind Recombinant Cynomolgus / Rhesus PD-L1 / B7-H1 / CD274 Protein (His Tag) (Cat: 90251-C08H), the EC₅₀ is 0.6-2 ng/mL (QC tested).

Endotoxin:

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

Predicted N terminal: Phe 19

Molecular Mass:

The recombinant cynomolgus / rhesus CD274 comprises 232 amino acids and has a calculated molecular mass of 26.7 kDa. As a result of glycosylation, it migrates as an approximately 37.7 kDa band 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°C to -80°C.

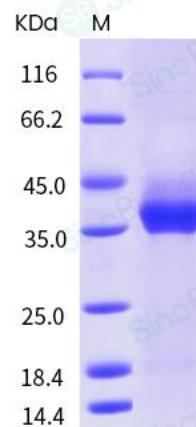
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

Programmed death-1 ligand-1 (PD-L1, CD274, B7-H1) has been identified as the ligand for the immunoinhibitory receptor programmed death-1 (PD1/PDCD1) and has been demonstrated to play a role in the regulation of immune responses and peripheral tolerance. PD-L1/B7-H1 is a member of the growing B7 family of immune molecules and this protein contains one V-like and one C-like Ig domain within the extracellular domain, and together with PD-L2, are two ligands for PD1 which belongs to the CD28/CTLA4 family expressed on activated lymphoid cells. By binding to PD1 on activated T-cells and B-cells, PD-L1 may inhibit ongoing T-cell responses by inducing apoptosis and arresting cell-cycle progression. Accordingly, it leads to growth of immunogenic tumor growth by increasing apoptosis of antigen specific T cells and may contribute to immune evasion by cancers. PD-L1 thus is regarded as promising therapeutic target for human autoimmune disease and malignant cancers.

References

1. Iwai Y, et al. (2002) Involvement of PD-L1 on tumor cells in the escape from host immune system and tumor immunotherapy by PD-L1 blockade. Proc Natl Acad Sci U S A. 99(19): 12293-7.
2. Ghebeh H, et al. (2006) The B7-H1 (PD-L1) T lymphocyte-inhibitory molecule is expressed in breast cancer patients with infiltrating ductal carcinoma: correlation with important high-risk prognostic factors. Neoplasia. 8(3): 190-8.
3. Salih HR, et al. (2006) The role of leukemia-derived B7-H1 (PD-L1) in tumor-T-cell interactions in humans. Exp Hematol. 34(7): 888-94.