

# Rat PD-L1 / B7-H1 / CD274 Protein (Fc Tag)



Sino Biological  
Biological Solution Specialist

Catalog Number: 80450-R02H

## General Information

### Gene Name Synonym:

CD274

### Protein Construction:

A DNA sequence encoding the rat CD274 (NP\_001178883.1)(Met1-Thr238) was expressed with the Fc region of human IgG1 at the C-terminus.

Source: Rat

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 rat CD274-Fc at 10 µg/ml (100 µl/well) can bind biotinylated rat PDCD1-Fc (Cat:80448-R02H), The EC<sub>50</sub> of biotinylated rat PDCD1-Fc (Cat:80448-R02H) is 0.14-0.34 µg/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 18

### Molecular Mass:

The recombinant rat CD274/Fc is a disulfide-linked homodimer. The reduced monomer comprises 459 amino acids and has a predicted molecular mass of 51.8 kDa. The apparent molecular mass of the protein is approximately 73.2 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

### Storage:

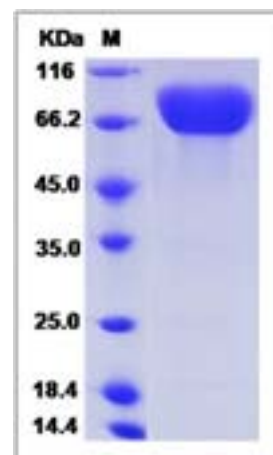
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

### Reconstitution:

Detailed reconstitution instructions are sent along with the products.

## SDS-PAGE:



## Protein Description

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.

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