Human PD-L1 / B7-H1 / CD274 Protein (ECD, Fc Tag)

Catalog Number: 10084-H05H

General Information

Gene Name Synonym:
B7-H; B7-H1; B7H1; PD-L1; PDCD1L1; PDCD1LG1; PDL1

Protein Construction:
A DNA sequence encoding the human CD274 (NP_054862.1) (Met1-Thr239) was expressed with the Fc region of mouse IgG1 at the C-terminus.

Source: Human

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 recombinant Human PD1-His (Cat:10377-H08H) at 10 μg/ml (100 μl/well) can bind human PD-L1 (Cat:10084-H05H) with a linear range of 1.28-20 μg/ml. Measured by its ability to inhibit anti-CD3 antibody induced IL-2 secretion in human T lymphocytes. The ED₅₀ for this effect is typically 0.4-3 μg/ml.

Endotoxin:
< 1.0 EU per μg 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: Phe 19

Molecular Mass:
The recombinant human CD274 consists of 455 amino acids and predicts a molecular mass of 51.7 kDa.

Formulation:
Lyophilized from 20 mM Tris, 150 mM NaCl, 10 % Glycerol, pH 8.5.

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