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

Catalog Number: 70110-D02H

General Information

Gene Name Synonym:
CD274

Protein Construction:
A DNA sequence encoding the canine CD274 (XP_541302.4) (Met1-Arg236) was expressed with the Fc region of human IgG1 at the C-terminus.

Source: Canine

Expression Host: HEK293 Cells

QC Testing

Purity: > (17.0+77.6) % as determined by SDS-PAGE.

Bio Activity:
1. Measured by its binding ability in a functional ELISA.
2. Immobilized human PD1-His (Cat:10377-H08H) at 10μg/mL (100μL/well) can bind canine CD274-Fc (Cat:70110-D02H), the EC50 of canine PD-L1-Fc is 0.1-0.5μg/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 canine CD274 consists 456 amino acids and predicts a molecular mass of 51.5 kDa.

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.

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