Human PD-L1 / B7-H1 / CD274 Protein (His Tag), Biotinylated

Catalog Number: 10084-H08H-B

General Information

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

**Protein Construction:**
A DNA sequence encoding the N-terminal segment (Met1-Thr239) of the extracellular domain of human B7-H1 (NP_054862.1) was expressed with a C-terminal polyhistidine tag. The purified protein was biotinylated in vitro.

**Source:** Human

**Expression Host:** HEK293 Cells

**QC Testing**

**Purity:** > 95% as determined by SDS-PAGE.

**Bio Activity:**
1. Measured by its binding ability in a functional ELISA. 2. Immobilized biotinylated human B7-H1-His (Cat: 10084-H08H-B) at 10μg/mL (100μL/well) can bind human PD1-Fch (cat: 10377-H03H), The EC50 of human PD1-Fch is 0.1-0.3 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 mature human B7-H1 comprises 232 amino acids and predicts a molecular mass of 26.8 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**

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