

Human B7-DC / PD-L2 / CD273 Protein (His Tag)

Catalog Number: 10292-H08H



Sino Biological
Biological Solution Specialist

General Information

Gene Name Synonym:

B7-DC; B7DC; bA574F11.2; Btdc; CD273; PD-L2; PDCD1L2; PDL2

Protein Construction:

A DNA sequence encoding the extracellular domain (Met 1-Pro 219) of human PD-L2 (NP_079515.2) was expressed with a C-terminal polyhistidine tag.

Source: Human

Expression Host: HEK293 Cells

QC Testing

Purity: ≥ 98 % as determined by SDS-PAGE. ≥ 90 % as determined by SEC-HPLC.

Bio Activity:

1. Measured by its binding ability in a functional ELISA. Immobilized human PD-L2 (Cat: 10292-H08H) at 2 µg/ml (100 µl/well) can bind human PD-1 (Cat: 10377-H03H), the EC50 of human PD-1 is 150-800 ng/mL.

2. Loaded Recombinant Human PD-1 Protein, hFc Tag (Cat. No. 10377-H02H) on ProA Biosensor, can bind Recombinant Human PD-L2 / B7-DC Protein, His Tag (Cat. No. 10292-H08H) with an affinity constant of 0.154 µM as determined in BLI assay (Sartorius Octet RED384) (Routinely tested).

Endotoxin:

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

Predicted N terminal: Leu 20

Molecular Mass:

The recombinant human PD-L2 consists of 211 amino acids and predicts a molecular mass of 24 kDa. As a result of glycosylation, the apparent molecular mass of rh PD-L2 is approximately 40-45 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

Stability & Storage:

Samples are stable for twelve months from date of receipt at -20°C to -80°C.

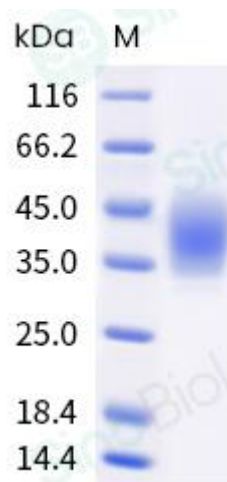
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

Programmed death ligand 2 (PD-L2), also referred to as B7-DC and CD273, is a member of the B7 family of proteins including B7-1, B7-2, B7-H2, B7-H1 (PD-L1), and B7-H3. PD-L2 is a type I membrane protein and structurally consists of an extracellular region containing one V-like and one C-like Ig domain, a transmembrane region, and a short cytoplasmic domain. PD-L2 is expressed on antigen presenting cells, placental endothelium and medullary thymic epithelial cells, and can be induced by LPS in B cells, INF-γ; in monocytes, or LPS plus INF-γ; in dendritic cells. The CD28 and B7 protein families are critical regulators of immune responses. PD-L2 and PD-L1 are two ligands for PD-1, member of the CD28/CTLA4 family expressed on activated lymphoid cells, and thus provide signals for regulating T cell activation and immune tolerance. The interaction of B7-DC/PD-1 exhibited a 2-6-fold higher affinity compared with the interaction of B7-H1/PD-1.

References

1. Latchman Y, et al. (2001) PD-L2 is a second ligand for PD-1 and inhibits T cell activation. Nat Immunol. 2: 261-8.
2. Carreno BM, et al. (2005) Therapeutic opportunities in the B7/CD28 family of ligands and receptors. Curr Opin Pharmacol. 5(4): 424-30.
3. Radhakrishnan S, et al. (2007) B7-DC/PD-L2 cross-linking induces NF-kappaB-dependent protection of dendritic cells from cell death. J Immunol. 178(3): 1426-32.