

Rat B7-DC / PD-L2 / CD273 Protein (Fc Tag)

Catalog Number: 80454-R02H



Sino Biological
Biological Solution Specialist

General Information

Gene Name Synonym:

PDCD1LG2

Protein Construction:

A DNA sequence encoding the rat PDCD1LG2 (NP_001101052.2) (Met1-Arg219) was expressed with the Fc region of human IgG1 at the C-terminus.

Source: Rat

Expression Host: HEK293 Cells

QC Testing

Purity: > 90 % as determined by SDS-PAGE

Bio Activity:

Measured by its binding ability in a functional ELISA. Immobilized rat rat PDCD1-His (Cat:80448-R08H) at 10 µg/ml (100 µl/well) can bind rat PDCD1LG2-Fc. The EC₅₀ of rat PDCD1LG2-Fc is 6-14 ng/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: Leu 20

Molecular Mass:

The recombinant rat PDCD1LG2/Fc is a disulfide-linked homodimer. The reduced monomer comprises 438 amino acids and has a predicted molecular mass of 49.2 kDa. The apparent molecular mass of the protein is approximately 64.6 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:

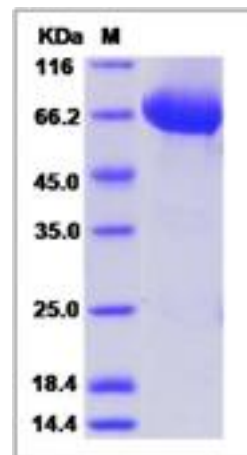
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

Programmed death 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 IFN-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.

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