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

Catalog Number: **80454-R02H**

Sino Biological Inc.
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: Human 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 EC_{50} 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 ℃

Predicted N terminal: Leu 20

Molecular Mass:

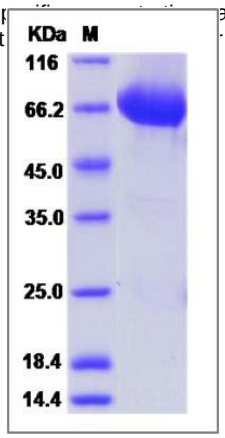
The recombinant rat PDCD1LG2/Fc is a disulfide-linked homodimer. The reduced monomer comprises 438 amino acids and has a predicted molecular mass of 49.2 kDa. The apparent molecular mass of the protein is approximately 64.6 kDa in SDS-PAGE under reducing conditions.

Formulation:

Lyophilized from sterile PBS, pH 7.4.

Normally 5 % - 8 % trehalose and mannitol are added as protectants before lyophilization. Sp are included in the hardcopy of COA. Please contact special requirements.

SDS-PAGE:



Usage Guide

Storage:

Store it under sterile conditions at -20℃ to -80℃ 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.

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 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. 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. It has been demonstrated that on human T cells, PD-L2 acts only as a negative regulator of T cell activity by inhibiting T-cell proliferation and cytokine production, involving modulation of the PI3-K/AKT and ERK/MAPK pathways.

References

1. Latchman, Y. et al., 2001, Nat. Immunol. 2: 261-268.
2. Tseng, S.Y. et al., 2001, J. Exp. Med. 193: 839-846.
3. Younanak, P. et al., 2003, Biochem. Biophys. Res. Commun. 307: 672-677.
4. Lloke, P. and Allison, J.P. 2003, Proc. Natl. Acad. Sci. USA. 100: 5336-5341.
5. Saunders. P.A. et al., 2005, Eur. J. Immunol. 35: 3561-3569.