

## Recombinant Mouse B7-DC/PD-L2/CD273 Protein (Fc Tag)

Catalog Number: PKSM041290

**Note:** Centrifuge before opening to ensure complete recovery of vial contents.

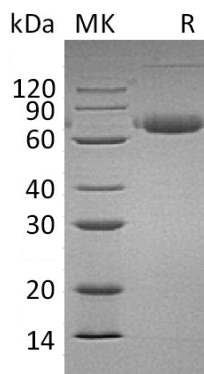
### Description

|                     |  |
|---------------------|--|
| <b>Species</b>      | Mouse  |
| <b>Source</b>       | HEK293 Cells-derived Mouse B7-DC/PD-L2/CD273 protein Leu20-Arg219, with an C-terminal Fc |
| <b>Mol_Mass</b>     | 49.7 kDa   |
| <b>Accession</b>    | Q9WUL5   |
| <b>Bio-activity</b> | Not validated for activity   |

### Properties

|                       |  |
|-----------------------|--|
| <b>Purity</b>         | > 95 % as determined by reducing SDS-PAGE.   |
| <b>Endotoxin</b>      | < 1.0 EU per µg of the protein as determined by the LAL method.  |
| <b>Storage</b>        | Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80 °C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months. |
| <b>Shipping</b>       | This product is provided as lyophilized powder which is shipped with ice packs.  |
| <b>Formulation</b>    | Lyophilized from a 0.2 µm filtered solution of 20mM PB, 150mM NaCl, pH 7.4. Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization.  |
| <b>Reconstitution</b> | Please refer to the specific buffer information in the printed manual.   |

### Data



### Background

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Rev. V3.6

Programmed cell death 1 ligand 2 (PD-L2), also known as butyrophilin B7-DC or PDCD1 ligand 2, belongs to the member of B7 family which can regulate the activation and tolerance of T cells. PD-L2 is one ligand for Programmed cell death 1 (PD-1), and the other is PD-L1. These two ligands share 34% aa sequence identity. Mouse PD-L2 gene encodes a 273 amino acids (aa) protein with a putative 19 aa signal peptide, a 201 aa extracellular region, a 21 aa transmembrane domain and a 32 aa cytoplasmic region. The mouse PD-L2 gene is highly expressed in heart, placenta, pancreas, lung and liver while expressed weakly in spleen, lymph nodes and thymus. Besides, the expression of PD-L2 gene can be induced on dendritic cells grown from peripheral blood mononuclear cells under CSF2 and IL4/interleukin-4 treatment, and up-regulated by IFNG/IFN- $\gamma$  stimulation in monocytes. PD-L2 usually functions in a PDCD1-independent manner and is involved in regulating costimulatory signal which is essential for T-cell proliferation and IFNG production. Recent studies demonstrate that the expression of PD-L2 on the tumor cells promotes CD8 T cell-mediated rejection of tumor cells, at both the induction and effector phase of antitumor immunity. Moreover, PD-L2 binds to PD-1 cells and enhances T cell killing in a PD-1-independent mechanism.