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# PD-L1

Catalog # PVGS1512

## Product Information

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| **Primary Accession** | Q9EP73 |
| **Species** | Mouse |
| **Sequence** | Phe19-Thr238 |
| **Purity** | > 95% as analyzed by SDS-PAGE |
| **Endotoxin Level** | |
| **Biological Activity** | Immobilized PD-L1, hFc, Mouse at 2.0 μg/ml (100 μl/well) can bind PD-1 protein, Mouse, Recombinant (ECD,His Tag) with $EC_{50}$=17.578 μg/ml when detected by His-HRP. |
| **Expression System** | HEK 293 |
| **Formulation** | Lyophilized from a 0.2 μm filtered solution in PBS. |
| **Reconstitution** | It is recommended that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute the lyophilized powder in dd$H_2O$ or PBS up to 100 μg/ml. |
| **Storage & Stability** | Upon receiving, this product remains stable for up to 6 months at lower than -70°C. Upon reconstitution, the product should be stable for up to 1 week at 4°C or up to 3 months at -20°C. For long term storage it is recommended that a carrier protein (example 0.1% BSA) be added. Avoid repeated freeze-thaw cycles. |

## Additional Information

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| **Gene ID** | 60533 |
| **Other Names** | Programmed cell death 1 ligand 1, PD-L1, PDCD1 ligand 1, Programmed death ligand 1, B7 homolog 1, B7-H1, CD274, Cd274, B7h1, Pdcd1l1, Pdcd1lg1, Pdl1 |
| **Target Background** | Programmed death-ligand 1 (PD-L1) also known as cluster of differentiation 274 (CD274) or B7 homolog 1 (B7-H1), is a protein that in humans is encoded by the CD274 gene. PD-L1 is a 40 kDa type 1 transmembrane protein that has been speculated to play a major role in suppressing the immune system during particular events such as pregnancy, tissue allografts, autoimmune disease and other disease states such as hepatitis. Normally the immune system reacts to foreign antigens where there is some accumulation in the lymph nodes or spleen which triggers a proliferation of antigen-specific CD8+ T cell. The formation of PD-1 receptor / PD-L1 or B7.1 receptor /PD-L1 ligand complex transmits an inhibitory signal which reduces the proliferation of these CD8+ T cells at the lymph nodes and supplementary to that PD-1 is also able to control the accumulation of foreign antigen specific T cells in the |

lymph nodes through apoptosis which is further mediated by a lower regulation of the gene Bcl-2. PD-L1 binds to its receptor, PD-1, found on activated T cells, B cells, and myeloid cells, to modulate activation or inhibition.

## Protein Information

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| **Name** | Cd274 |
| **Synonyms** | B7h1, Pdcd1l1, Pdcd1lg1, Pdl1 |
| **Function** | Plays a critical role in induction and maintenance of immune tolerance to self (PubMed:11238124). As a ligand for the inhibitory receptor PDCD1/PD-1, modulates the activation threshold of T-cells and limits T-cell effector response (PubMed:11238124). Through a yet unknown activating receptor, may costimulate T-cell subsets that predominantly produce interleukin-10 (IL10) (PubMed:11015443, PubMed:12719480). |
| **Cellular Location** | Cell membrane {ECO:0000250\|UniProtKB:Q9NZQ7}; Single-pass type I membrane protein. Early endosome membrane {ECO:0000250\|UniProtKB:Q9NZQ7}; Single-pass type I membrane protein. Recycling endosome membrane {ECO:0000250\|UniProtKB:Q9NZQ7}; Single-pass type I membrane protein |
| **Tissue Location** | Highly expressed in the heart, thymus, skeletal muscle, and lung. Weakly expressed in the kidney, spleen, thyroid, and liver. Expressed on activated dendritic cells, B-cells and macrophages Expressed in numerous tumor cells lines of lymphoid origin |