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PD-L2

Catalog # PVGS1534

Product Information

Primary Accession	Q9BQ51
Species	Human
Sequence	Leu20-Pro219
Purity	> 97% as analyzed by SDS-PAGE
Endotoxin Level	
Biological Activity	Immobilized PD-L2, hFc, Human (Cat. No.: Z03417) at 5.0 μg/ml (100 μl/well) can bind Biotin-PD-1 Fc, Human when detected by Streptavidin-HRP.
Expression System	HEK 293
Formulation	Lyophilized from a 0.2 μm filtered solution in PBS, 5% trehalose and mannitol.
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 ddH_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

Gene ID	80380
Other Names	Programmed cell death 1 ligand 2, PD-1 ligand 2, PD-L2, PDCD1 ligand 2, Programmed death ligand 2, Butyrophilin B7-DC, B7-DC, CD273, PDCD1LG2, B7DC, CD273, PDCD1L2, PDL2
Target Background	PD-L1 and PD-L2 are ligands for PD-1, a costimulatory molecule that plays an inhibitory role in regulating T cell activation in the periphery. PD-L2 also known as PD-L2, B7-DC serves as a negative and a positive regulator of T cell function. The expression and function of PD-L2 are similar to PD-L1. Both PD-L2 PD-1 and PD-L1 PD-1 signals inhibit T cell proliferation by blocking cell cycle progression but not by increasing cell death. PD-L2 PD-1 interactions are able to inhibit TCR-mediated proliferation and cytokine production in the absence of CD28 costimulation. Threshold for T cell activation may be a balance between activating signals, such as those delivered by the engagement of CD28 by B7-1 and B7-2, and inhibitory signals, mediated by engagement of PD-1 by PD-L1 and PD-L2. The structural conservation of B7-like and CD28-like receptors may reflect the distance between T cells and

APCs in the immunological synapse. The PD-L PD-1 pathway may play a key role in the induction and/or maintenance of peripheral tolerance and autoimmune disease. Because PD-L1 and PD-L2 can inhibit effector T cell proliferation and cytokine production, the PD-L PD-1 pathway may be an attractive therapeutic target. Blocking the PD-1 pathway may enhance anti-tumor immunity, whereas stimulating this pathway may be useful for down-regulating ongoing immune responses in transplant rejection and autoimmune and allergic diseases.

Protein Information

Name	PDCD1LG2
Synonyms	B7DC, CD273, PDCD1L2, PDL2
Function	Involved in the costimulatory signal, essential for T-cell proliferation and IFNG production in a PDCD1-independent manner. Interaction with PDCD1 inhibits T-cell proliferation by blocking cell cycle progression and cytokine production (By similarity).
Cellular Location	[Isoform 3]: Secreted [Isoform 1]: Cell membrane; Single-pass type I membrane protein {ECO:0000250|UniProtKB:Q9WUL5, ECO:0000305|PubMed:15340161}
Tissue Location	Highly expressed in heart, placenta, pancreas, lung and liver and weakly expressed in spleen, lymph nodes and thymus