

PD-L1 Protein, Canine, Recombinant (hFc)

General Information

Synonyms:	CD274 molecule
Protein Construction:	A DNA sequence encoding the canine CD274 (NP_001278901.1) (Met1-Arg236) was expressed with the Fc region of human IgG1 at the C-terminus. Predicted N terminal: Phe 19
Species:	Canine
Expression Host:	HEK293 Cells
Accession:	A0A8C0MRV9
Molecular Weight:	51.5 kDa (predicted); 77.93 and 149.69 kDa (reducing condition, due to glycosylation)

QC Testing

Biological Activity:	Loaded Recombinant Canine PD-1 Protein, His Tag (Cat#TMPY-04342) on His1K Biosensor, can bind Recombinant Canine PD-L1/B7-H1 Protein, hFc Tag (Cat#TMPY-00237) with an affinity constant of 38.1 nM as determined in BLI assay (Sartorius Octet RED384) (QC tested).
Purity:	≥ 90 % as determined by SDS-PAGE. ≥ 90 % as determined by SEC-HPLC.
Endotoxin:	< 1.0 EU/μg of the protein as determined by the LAL method.
Formulation:	Lyophilized from a solution filtered through a 0.22 μm filter, containing PBS, pH 7.4. Typically, a mixture containing 5% to 8% trehalose, mannitol, and 0.01% Tween 80 is incorporated as a protective agent before lyophilization.

Preparation and Storage

Reconstitution:	Reconstituted with sterile deionized water to 0.25 mg/mL. Reconstitution conditions may vary depending on the lot.
Stability & Storage:	It is recommended to store recombinant proteins at -20°C to -80°C for future use. Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots. <small>Actual storage temperature shall be subject to the COA.</small>

Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

Protein Background

Programmed death-1 ligand-1 (PD-L1, CD274, B7-H1) has been identified as the ligand for the immunoinhibitory receptor programmed death-1 (PD1/PDCD1) and has been demonstrated to play a role in the regulation of immune responses and peripheral tolerance. PD-L1/B7-H1 is a member of the growing B7 family of immune molecules and this protein contains one V-like and one C-like Ig domain within the extracellular domain, and

together with PD-L2, are two ligands for PD1 which belongs to the CD28/CTLA4 family expressed on activated lymphoid cells. By binding to PD1 on activated T-cells and B-cells, PD-L1 may inhibit ongoing T-cell responses by inducing apoptosis and arresting cell-cycle progression. Accordingly, it leads to growth of immunogenic tumor growth by increasing apoptosis of antigen specific T cells and may contribute to immune evasion by cancers. PD-L1 thus is regarded as promising therapeutic target for human autoimmune disease and malignant cancers. Cancer Immunotherapy Co-inhibitory Immune Checkpoint Targets Immune Checkpoint Immune Checkpoint Blockade: Blocking Antibody Immune Checkpoint Blockade: PD-L1 / B7-H1 / C Immune Checkpoint Detection: Antibodies Immune Checkpoint Detection: ELISA Antibodies Immune Checkpoint Detection: FCM Antibodies Immune Checkpoint Detection: ICC Antibodies Immune Checkpoint Detection: IHC Antibodies Immune Checkpoint Detection: WB Antibodies Immune Checkpoint Proteins Immune Checkpoint Targets Immunotherapy PD-L1 / B7-H1 / CD274 Immune Checkpoint Prote Targeted Therapy

Reference

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