Data Sheet (Cat.No.TMPS-00120)

TargetMol

PD-L1 Protein, Human, Recombinant (CHO, hFc)

General Information

Synonyms:	PDCD1LG1;B7-H;B7-H1;CD274;PDL1;PDCD1L1;CD274 molecule;Programmed cell death ligand 1
Protein Construction:	Phe19-Thr239
Species:	Human
Expression Host:	CHO Cells
Accession:	Q9NZQ7-1
Molecular Weight:	70~72 kDa (Reducing conditions)

QC Testing

Biological Activity:	1. Immobilized PD-L1, hFc, Human at 1.0 μg/ml (100 μl/well) can bind biotinylated PD-1, hFc, Human. 2. Immobilized PD-1, His, Human at 2.0 μg/ml can bind PD-L1, hFc, Human.
Purity:	> 98% as determined by SDS-PAGE
Endotoxin:	< 0.2 EU/μg of protein as determined by the LAL method.
Formulation:	Lyophilized from a 0.2 μm filtered solution in PBS

Preparation and Storage

Reconstitution:

Reconstitute the lyophilized protein in sterile deionized water. The product concentration should not be less than 100 μg/ml. Before opening, centrifuge the tube to collect powder at the bottom. After adding the reconstitution buffer, avoid vortexing or pipetting for mixing.

Stability & Storage:

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.

Actual storage temperature shall be subject to the COA.

Shipping:

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

Protein 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. Recombinant Human PD-L1(B7-H1) Fc Chimera produced in CHO cells is a polypeptide chain containing 457 amino acids. A fully biologically active molecule, rh PD-L1(B7-H1) has a molecular mass of 70-72 kDa analyzed by reducing SDS-PAGE and is obtained by chromatographic techniques at GenScript.

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