Data Sheet (Cat.No.TMPY-06281)

TargetMol

PD-L2 Protein, Human, Recombinant (hFc & Avi), Biotinylated

General Information

Synonyms:	bA574F11.2;B7DC;B7-DC;PDCD1L2;programmed cell death 1 ligand 2;PDL2;CD273;PD-L2;Btdc
Protein Construction:	A DNA sequence encoding the human PDCD1LG2 (NP_079515.2) (Met1-Pro219) was expressed with a c-terminal AVI tagged Fc region of human IgG1 at the C-terminus (Fc-AVI). The expressed protein was biotinylated in vivo by the Biotin-Protein ligase (BirA enzyme) which is co-expressed. Predicted N terminal: Leu20
Species:	Human
Expression Host:	HEK293 Cells
Accession:	Q9BQ51-1
Molecular Weight:	51.09 kDa (predicted); 63.75 and 34.77 kDa (reducing conditions)

QC Testing

Biological Activity:	Immobilized Human PD-1 His & hFc at 2 μg/mL (100 μL/well) can bind Human PD-L2 hFc & AVI, Biotinylated, the EC50 of Human PD-L2 hFc & AVI, Biotinylated is 8-50 ng/mL.
Purity:	> 95 % as determined by SDS-PAGE.
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:

A Certificate of Analysis (CoA) containing reconstitution instructions is included with the products. Please refer to the CoA for detailed information.

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.

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 2 (PD-L2), also referred to as B7-DC and CD273, is a member of the B7 family of proteins including B7-1, B7-2, B7-H2, B7-H1 (PD-L1), and B7-H3. PD-L2 is a type I membrane protein and

structurally consists of an extracellular region containing one V-like and one C-like Ig domain, a transmembrane region, and a short cytoplasmic domain. PD-L2 is expressed on antigen presenting cells, placental endothelium and medullary thymic epithelial cells, and can be induced by LPS in B cells, INF-γ in monocytes, or LPS plus IFN-γ in dendritic cells. The CD28 and B7 protein families are critical regulators of immune responses. PD-L2 and PD-L1 are two ligands for PD-1, member of the CD28/CTLA4 family expressed on activated lymphoid cells, and thus provide signals for regulating T cell activation and immune tolerance. The interaction of B7-DC/PD-1 exhibited a 2-6-fold higher affinity compared with the interaction of B7-H1/PD-1.Cancer ImmunotherapyCo-inhibitory Immune Checkpoint TargetsImmune CheckpointImmune Checkpoint Detection: AntibodiesImmune Checkpoint Detection: ELISA AntibodiesImmune Checkpoint Detection: FCM AntibodiesImmune Checkpoint Detection: WB AntibodiesImmune Checkpoint ProteinsImmune Checkpoint TargetsImmunotherapyTargeted Therapy

Reference

Latchman Y,et al.(2001) PD-L2 is a second ligand for PD-1 and inhibits T cell activation. Nat Immunol. 2: 261-8.
Carreno BM,et al.(2005) Therapeutic opportunities in the B7/CD28 family of ligands and receptors. Curr Opin Pharmacol. 5(4): 424-30.
Radhakrishnan S,et al.(2007) B7-DC/PD-L2 cross-linking induces NF-kappaB-dependent protection of dendritic cells from cell death. J Immunol. 178(3): 1426-32.