Data Sheet (Cat.No.TMPY-03670)

TargetMol

PD-L1 Protein, Cynomolgus/Rhesus, Recombinant (His)

General Information

Synonyms: CD274 molecule

Protein Construction: A DNA sequence encoding the cynomolgus / rhesus CD274 (XP_015292694.1/XP_014973151.1) (Met1-Thr239) was expressed with a polyhistidine tag at the C-terminus. Cynomolgus and Rhesus CD274 sequences are identical. Predicted N terminal: Phe 19

Species: Cynomolgus,Rhesus

Expression Host: HEK293 Cells

Accession: XP_015292694.1&XP_014973151.1

Molecular Weight: 52 kDa (predicted); 37.7 kDa (reducing condition, due to glycosylation)

QC Testing

Biological Activity: Measured by its ability to bind Cynomolgus PD1-Fc in a functional ELISA.

Purity: ≥ 95 % as determined by SDS-PAGE. ≥ 85 % 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.

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-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 ImmunotherapyCo-inhibitory Immune Checkpoint TargetsImmune CheckpointImmune Checkpoint Blockade: Blocking AntibodiImmune Checkpoint Blockade: PD-L1 / B7-H1 / CImmune Checkpoint Detection: AntibodiesImmune Checkpoint Detection: ELISA AntibodiesImmune Checkpoint Detection: FCM AntibodiesImmune Checkpoint Detection: ICC AntibodiesImmune Checkpoint Detection: IHC AntibodiesImmune Checkpoint Detection: WB AntibodiesImmune Checkpoint ProteinsImmune Checkpoint TargetsImmunotherapyPD-L1 / B7-H1 / CD274 Immune Checkpoint ProteTargeted Therapy

Reference

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Ghebeh H, et al. (2006) The B7-H1 (PD-L1) T lymphocyte-inhibitory molecule is expressed in breast cancer patients with infiltrating ductal carcinoma: correlation with important high-risk prognostic factors. Neoplasia. 8(3): 190-8.
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