Data Sheet (Cat.No.TMPK-00180)

TargetMol

PD-1 Protein, Human, Recombinant (aa 25-167, hFc & Avi), Biotinylated

General Information

Synonyms:	PD-1;PDCD1;CD279;SLEB2;PD1
Protein Construction:	Leu25-Gln167
Species:	Human
Expression Host:	HEK293 Cells
Accession:	Q15116-1
Molecular Weight:	44.7 kDa (predicted). Due to glycosylation, the protein migrates to 65-72 kDa based on Tris-Bis PAGE result.

QC Testing

Biological Activity:	Immobilized Human PD-L1, mFc tag at 2μg/ml (100μl/Well). Dose response curve for Biotinylated Human PD-1, hFc tag with the EC50 of 0.19μg/ml determined by ELISA.
Purity:	> 95% as determined by Tris-Bis PAGE; > 95% as determined by 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, 8% trehalose is incorporated as a protective agent before lyophilization.

Preparation and Storage

Reconstitution:

Reconstitute the lyophilized protein in distilled 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:

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 cell death protein 1, also known as PD-1 and CD279 , is a protein found on the surface of cells that has a role in regulating the immune system's response to the cells of the human body by down-regulating the immune system and promoting self tolerance by suppressing T cell inflammatory activity.

Reference

Blank C , Mackensen A. Contribution of the PD-L1/PD-1 pathway to T-cell exhaustion: an update on implications for chronic infections and tumor evasion[J]. Cancer Immunology Immunotherapy, 2007, 56(5):739-745.