

# Human PD-1/PDCD1 Protein

Cat. No. PD1-HM101

## Description

<b>Source</b>	Recombinant Human PD-1/PDCD1 Protein is expressed from HEK293 with His tag at the C-Terminus. It contains Leu25-Gln167.
<b>Accession</b>	Q15116-1
<b>Molecular Weight</b>	The protein has a predicted MW of 17 kDa. Due to glycosylation, the protein migrates to 38-50 kDa based on Bis-Tris PAGE result.
<b>Endotoxin</b>	Less than 1 EU per $\mu$ g by the LAL method.
<b>Purity</b>	> 95% as determined by Bis-Tris PAGE > 95% as determined by HPLC

## Formulation and Storage

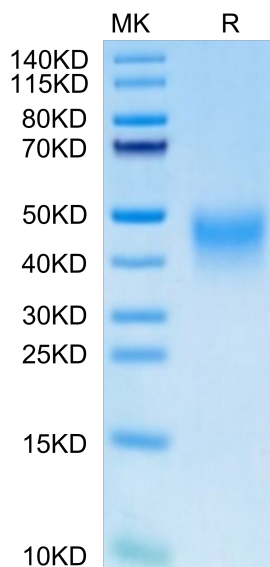
<b>Formulation</b>	Lyophilized from 0.22 $\mu$ m filtered solution in PBS (pH 7.4). Normally 8% trehalose is added as protectant before lyophilization.
<b>Reconstitution</b>	Dissolve the lyophilized protein in distilled water. Please refer to the Certificate of Analysis for detailed instructions.
<b>Storage</b>	-20 to -80°C for 12 months as supplied from date of receipt. -80°C for 3 months after reconstitution. Recommend to aliquot the protein into smaller quantities for optimal storage. Please minimize freeze-thaw cycles.

## 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.

## Assay Data

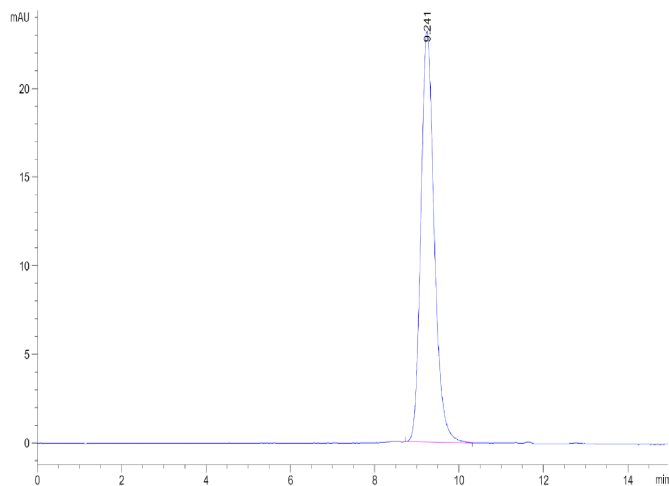
### Bis-Tris PAGE



Human PD-1 on Bis-Tris PAGE under reduced.  
The purity is greater than 95%.

### SEC-HPLC

Assay Data

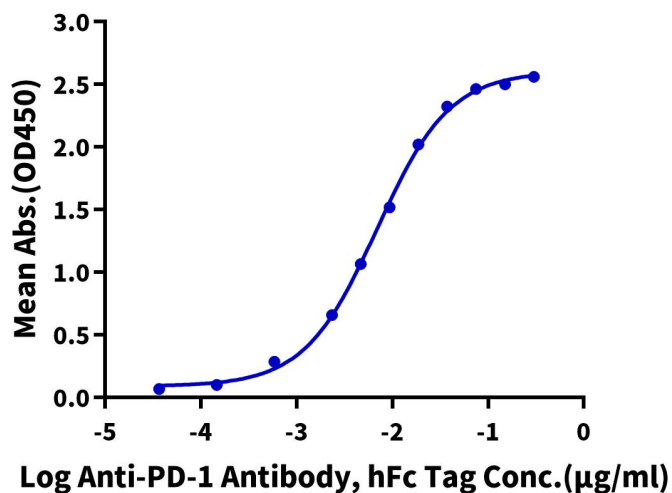


The purity of Human PD-1 is greater than 95% as determined by SEC-HPLC.

ELISA Data

**Human PD-1, His Tag ELISA**

0.1µg Human PD-1, His Tag Per Well

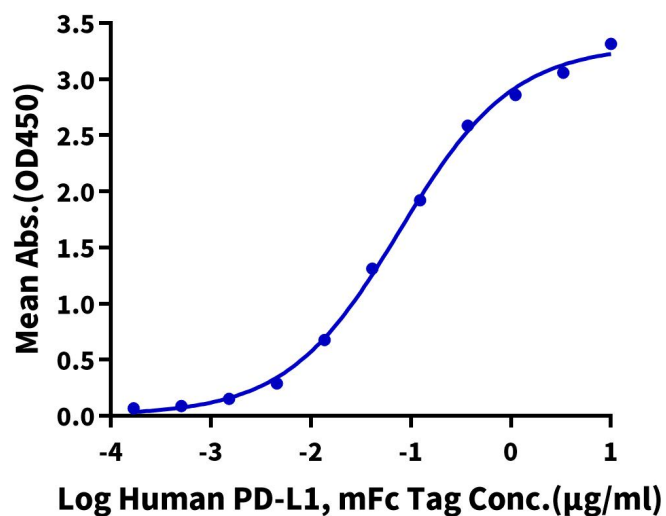


Immobilized Human PD-1, His Tag at 1µg/ml (100µl/Well). Dose response curve for Anti-PD-1 Antibody, hFc Tag with the EC50 of 6.9ng/ml determined by ELISA (QC Test).

ELISA Data

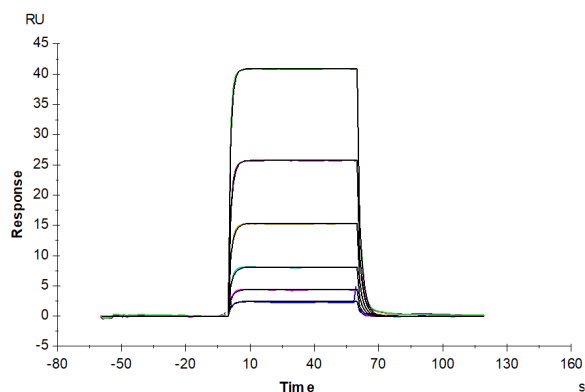
## Assay Data

## Human PD-1, His Tag ELISA

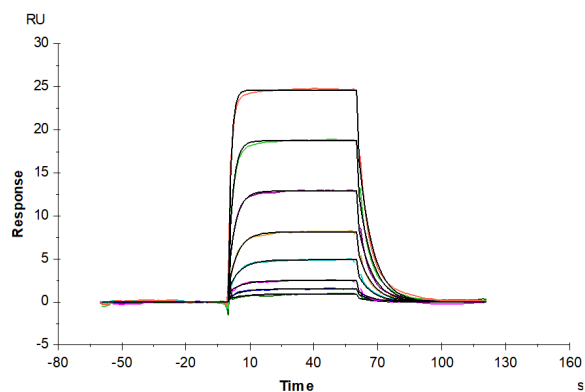
0.2 $\mu$ g Human PD-1, His Tag Per Well

Immobilized Human PD-1, His Tag at 2 $\mu$ g/ml (100 $\mu$ l/well) on the plate. Dose response curve for Human PD-L1, mFc Tag with the EC50 of 77.8ng/ml determined by ELISA.

## SPR Data



Human PD-L1, hFc Tag captured on CM5 Chip via Protein A can bind Human PD-1, His Tag with an affinity constant of 2.20  $\mu$ M as determined in SPR assay (Biacore T200).



Human PD-L2, hFc Tag captured on CM5 Chip via Protein A can bind Human PD-1, His Tag with an affinity constant of 0.21  $\mu$ M as determined in SPR assay (Biacore T200).