

# Human PD-1/PDCD1 Protein

Cat. No. PD1-HM301

## Description

<b>Source</b>	Recombinant Human PD-1/PDCD1 Protein is expressed from HEK293 with mFc (IgG1) 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 41.6 kDa. Due to glycosylation, the protein migrates to 64-68 kDa based on Bis-Tris PAGE result.
<b>Endotoxin</b>	Less than 1EU per µg by the LAL method.
<b>Purity</b>	> 95% as determined by Bis-Tris PAGE > 95% as determined by HPLC

## Formulation and Storage

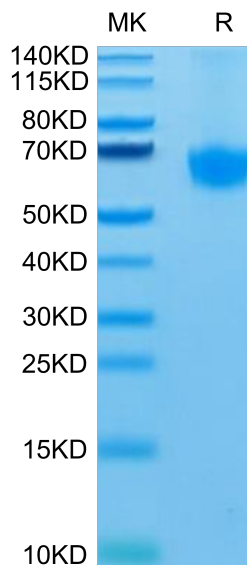
<b>Formulation</b>	Lyophilized from 0.22µm filtered solution in PBS (pH 7.4). Normally 8% trehalose is added as protectant before lyophilization.
<b>Reconstitution</b>	Centrifuge the tube before opening. Reconstituting to a concentration more than 100 µg/ml is recommended. Dissolve the lyophilized protein in distilled water.
<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 Death-1 receptor (PD-1), also known as CD279, is type I transmembrane protein belonging to the CD28 family of immune regulatory receptors. PD1 is an inhibitory receptor on antigen activated T-cells that plays a critical role in induction and maintenance of immune tolerance to self. Delivers inhibitory signals upon binding to ligands CD274/PDCD1L1 and CD273/PDCD1LG2 (PubMed:21276005). Following T-cell receptor (TCR) engagement, PDCD1 associates with CD3-TCR in the immunological synapse and directly inhibits T-cell activation.

## Assay Data

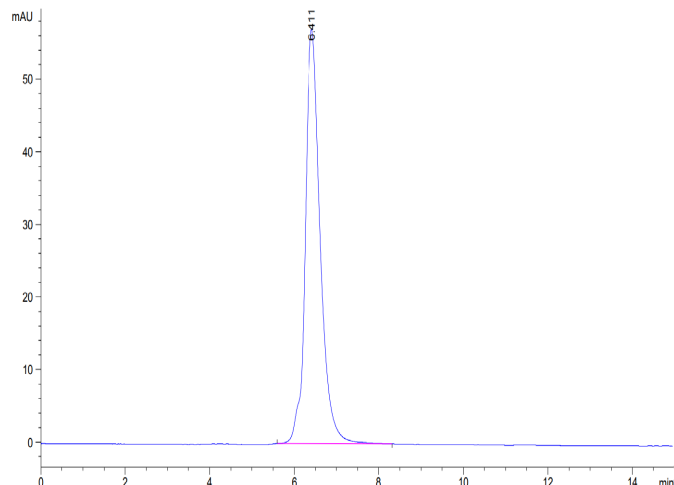
### Bis-Tris PAGE



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

### SEC-HPLC

Assay Data

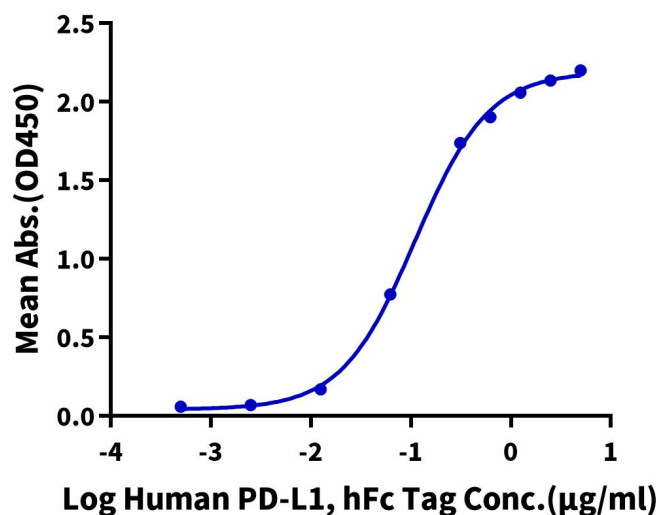


The purity of Human PD-1 is greater than 95% as determined by SEC-HPLC.

ELISA Data

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

0.2µg Human PD-1, mFc Tag Per Well

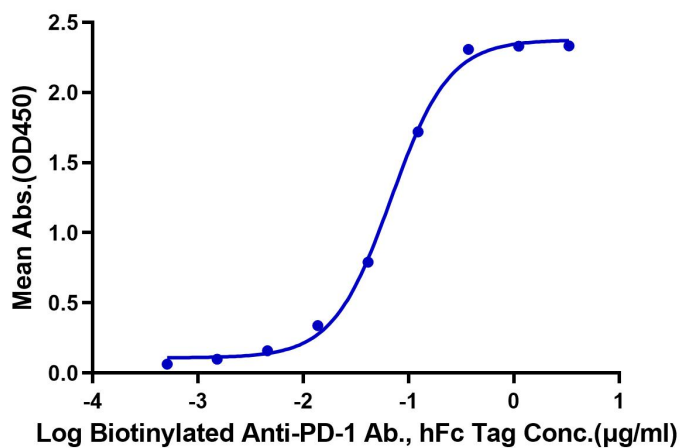


Immobilized Human PD-1, mFc Tag at 2µg/ml (100µl/well) on the plate. Dose response curve for Human PD-L1, hFc Tag with the EC50 of 0.11µg/ml determined by ELISA (QC Test).

ELISA Data

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

0.05µg Human PD-1, mFc Tag Per Well



Immobilized Human PD-1, mFc Tag at 0.5µg/ml (100µl/Well). Dose response curve for Biotinylated Anti-PD-1 Ab., hFc Tag with the EC50 of 68ng/ml determined by ELISA.