

**Human CellExp PD-1 /PDCD1, mouse recombinant protein**  
PD, PD 1, PD 1 protein, PD 1 recombinant protein, mouse PD 1 protein, mouse recombinant PD 1 protein  
Catalog # PBV11120r

## Specification

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### Human CellExp PD-1 /PDCD1, mouse recombinant protein - Product info

Primary Accession  
Calculated MW

[Q02242](#)

This protein is fused with a polyhistidine tag at the C-terminus, and has a calculated MW of 17.4 kDa. The predicted N-terminus is Ser 21. DTT-reduced Protein migrates as 25-45 kDa in SDS-PAGE due to glycosylation. KDa

### Human CellExp PD-1 /PDCD1, mouse recombinant protein - Additional Info

Gene ID  
Gene Symbol  
**Other Names**  
PDCD1, PD1, CD279, SLEB2, hPD-1, hPD-I

**18566**  
**PDCD1**

Gene Source  
Source  
Assay&Purity  
Assay2&Purity2  
Recombinant  
Results

**Mouse**  
**HEK293 cells**  
**SDS-PAGE; ≥95%**  
**N/A;**  
**Yes**  
**Measured by its binding ability in a functional ELISA. Immobilized mouse PDCD1 Protein at 5 µg/ml can bind mouse PDL1 protein Fc Chimera with a linear range of 0.2-5 µg/ml when detected by HRP\*-labeled Goat anti Human IgG, Fcy Fragment MAb.**

**Target/Specificity**  
PD-1/PDCD1

### Application Notes

Centrifuge the vial prior to opening. Reconstitute in sterile PBS, pH 7.4 to a concentration of 50 µg/ml. Do not vortex. This solution can be stored at 2-8°C for up to 1 month. For extended storage, it is recommended to store at -20°C.

**Format**  
Lyophilized

### Storage

-20°C; Lyophilized from 0.22 µm filtered solution in PBS, pH 7.4. Normally Mannitol or Trehalose is added as protectants before lyophilization.

## **Human CellExp PD-1 /PDCD1, mouse recombinant protein - Protocols**

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

## **Human CellExp PD-1 /PDCD1, mouse recombinant protein - Images**

## **Human CellExp PD-1 /PDCD1, mouse recombinant protein - Background**

Programmed cell death protein 1 (PD-1) is also known as CD279 and PDCD1, is a type I membrane protein and is a member of the extended CD28/CTLA-4 family of T cell regulators. PDCD1 is expressed on the surface of activated T cells, B cells, macrophages, myeloid cells and a subset of thymocytes. PD-1 has two ligands, PD-L1 and PD-L2, which are members of the B7 family. PD-L1 is expressed on almost all murine tumor cell lines, including PA1 myeloma, P815 mastocytoma, and B16 melanoma upon treatment with IFN- $\gamma$ . PD-L2 expression is more restricted and is expressed mainly by DCs and a few tumor lines. PD1 inhibits the T-cell proliferation and production of related cytokines including IL-1, IL-4, IL-10 and IFN- $\gamma$  by suppressing the activation and transduction of PI3K/AKT pathway. In addition, coligation of PD1 inhibits BCR-mediating signal by dephosphorylating key signal transducer. In vitro, treatment of anti-CD3 stimulated T cells with PD-L1-Ig results in reduced T cell proliferation and IFN- $\gamma$  secretion. Monoclonal antibodies targeting PD-1 that boost the immune system are being developed for the treatment of cancer. This protein is suitable for use in protein studies such as protein structure analysis and protein-protein interactions. It can also be used as an immunogen, as a protein standard, or in cell biology research applications.

## **Human CellExp PD-1 /PDCD1, mouse recombinant protein - References**

Ishida Y.,et al.EMBO J. 11:3887-3895(1992).  
Zhang X.,et al.Immunity 20:337-347(2004).  
Lin D.Y.,et al.Proc. Natl. Acad. Sci. U.S.A. 105:3011-3016(2008).  
Lazar-Molnar E.,et al.Proc. Natl. Acad. Sci. U.S.A. 105:10483-10488(2008).