The purity of rh PD1/PDCD1 (21-167) was determined by DTT-reduced (+) SDS-PAGE and staining overnight with Coomassie Blue.

**PD1 Recombinant Protein**

**CATALOG NUMBER:** RF16000-01

The purity of rh PD1/PDCD1 (21-167) was determined by DTT-reduced (+) SDS-PAGE and staining overnight with Coomassie Blue.

**Specifications**

**SPECIES:** Human  
**SOURCE SPECIES:** HEK293 cells  
**SEQUENCE:** Leu 25 - Gln 167  
**FUSION TAG:** His Tag  
**TESTED APPLICATIONS:** WB  
**APPLICATIONS:** This recombinant protein can be used for WB. For research use only.  
**BIOLOGICAL ACTIVITY:** (1) Measured by its binding ability in a functional ELISA. Immobilized Human PD-1, His Tag at 2 ug/mL (100 uL/well) can bind Human PD-L1, Fc Tag with a linear range of 0.8-250 ng/mL. (2) Measured by its binding ability in a functional ELISA. Immobilized Human PD-1, His Tag at 0.2 ug/mL (100 ul/well) can bind Human PD-L2, Fc Tag with a linear range of 0.16-2.5 ug/mL.

**Properties**

**PURITY:** >95% as determined by SDS-PAGE.  
**PREDICTED MOLECULAR WEIGHT:** 16.77 kDa  
**PHYSICAL STATE:** Lyophilized  
**BUFFER:** PBS, pH 7.4  
**STORAGE CONDITIONS:** Lyophilized Protein should be stored at -20°C or lower for long term storage. Upon reconstitution, working aliquots should be stored at -20°C or -70°C. Avoid repeated freeze-thaw cycles.

**Additional Info**

**ALTERNATE NAMES:** PDCD1, PD1, CD279, SLEB2, hPD-1, hPD-I, PD-1  
**ACCESSION NO.:** NP_005009.2

**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...
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. 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-γ. 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-γ 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-γ secretion. Monoclonal antibodies targeting PD-1 that boost the immune system are being developed for the treatment of cancer.