

## Recombinant Human PD-1/PDCD1 Protein (His Tag)

**Catalog Number:** PKSH032861

**Note:** Centrifuge before opening to ensure complete recovery of vial contents.

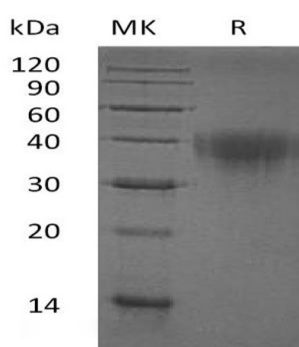
### Description

<b>Species</b>	Human
<b>Source</b>	HEK293 Cells-derived Human PD-1;PDCD1 protein Pro21-Gln167, with an C-terminal His
<b>Calculated MW</b>	17 kDa
<b>Observed MW</b>	30-42 kDa
<b>Accession</b>	Q15116
<b>Bio-activity</b>	Immobilized Human PD-1-His at 2µg/ml (100 µl/well) can bind Anti-PD1 mAb. The ED <sub>50</sub> of Anti-PD1 mAb is 9.74 ng/ml.

### Properties

<b>Purity</b>	> 95 % as determined by reducing SDS-PAGE.
<b>Endotoxin</b>	< 1.0 EU per µg of the protein as determined by the LAL method.
<b>Storage</b>	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80 °C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.
<b>Shipping</b>	This product is provided as lyophilized powder which is shipped with ice packs.
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution of 20mM Tris-HCl, 10% Trehalose, 100mM NaCl, 0.05% Tween 80, pH 7.5. Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual.
<b>Reconstitution</b>	Please refer to the printed manual for detailed information.

### Data



> 95 % as determined by reducing SDS-PAGE.

### Background

### For Research Use Only

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Rev. V3.5

Programmed cell death protein 1(PDCD1) is a single-pass type I membrane protein and contains 1 Ig-like V-type domain. PD-1 is a member of the extended CD28/CTLA-4 family of T cell regulators. PDCD1 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 PDCD1 inhibits BCR-mediating signal by dephosphorylating key signal transducer. PDCD1 has been suggested to be involved in lymphocyte clonal selection and peripheral tolerance; and thus contributes to the prevention of autoimmune diseases. As a cell surface molecule; PDCD1 regulates the adaptive immune response. Engagement of PD-1 by its ligands PD-L1 or PD-L2 transduces a signal that inhibits T-cell proliferation; cytokine production; and cytolytic function.