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

Catalog Number: PKSH032864



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

## **Description**

Synonyms Programmed cell death protein 1;PDCD1;PD-1;hPD-1;CD279;SLEB2;Hsle1

Species Human

**Expression Host** HEK293 Cells **Sequence** Pro21-Gln167

Accession Q15116
Calculated Molecular Weight 42.0 kDa
Observed molecular weight 60 kDa
Tag C-mFc

**Bioactivity** Immobilized Anti-Human PD-1 mAb at 2μg/ml (100 μl/well) can bind Human

PD-1-mFc. The ED50 of Human PD-1-mFc is 12.53 ng/ml.

## **Properties**

**Purity** > 95 % as determined by reducing SDS-PAGE.

**Endotoxin** < 1.0 EU per µg of the protein as determined by the LAL method.

**Storage** 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.

**Shipping** This product is provided as lyophilized powder which is shipped with ice packs.

**Formulation** Lyophilized from a 0.2 µm filtered solution of PBS, pH 7.4.

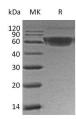
Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as

protectants before lyophilization.

Please refer to the specific buffer information in the printed manual.

**Reconstitution** Please refer to the printed manual for detailed information.

#### Data



> 95 % as determined by reducing SDS-PAGE.

#### **Background**

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

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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.

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