



# Recombinant Protein Technical Manual

**Recombinant Human PD/PDCD1 Protein (C93S  
Mutant, His Tag)**  
RPES1350

## Product Data:

**Product SKU:** RPES1350

**Size:** 10µg

**Species:** Human

**Expression host:** Human Cells

**Uniprot:** Q15116

## Protein Information:

**Molecular Mass:** 16.8 kDa

**AP Molecular Mass:** 25-32 kDa

**Tag:** C-6His

**Bio-activity:**

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

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

**Storage:** 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.

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

**Application:**

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

## Immunogen Information:

**Sequence:** Leu25-Gln167,Cys93Ser

## Background:

Programmed cell death protein 1 (PDCD1) is a single-pass type I membrane protein and contains 1 Ig-like V-type domain. PD 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, IL-4, IL-10 and IFN- $\gamma$  by suppressing the activation and transduction of PI3K/AKT pathway. In addition, coligation of PDCD1 inhibits BCR-mediated 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 by its ligands PD-L1 or PD-L2 transduces a signal that inhibits T-cell proliferation, cytokine production, and cytolytic function.