



Recombinant Protein Technical Manual  
Recombinant Mouse PD1/PDCD1 Protein (His Tag)  
RPES3720

### Product Data:

**Product SKU:** RPES3720

**Size:** 100µg

**Species:** Mouse

**Expression host:** HEK293 Cells

**Uniprot:** NP\_032824.1

### Protein Information:

**Molecular Mass:** 17.6 kDa

**AP Molecular Mass:** 40-45 kDa

**Tag:** C-His

**Bio-activity:**

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

**Endotoxin:** < 1.0 EU per µg of the protein 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 sterile PBS, pH 7.4

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

**Application:**

**Synonyms:** Ly101;PD;Pdc1

## Immunogen Information:

**Sequence:** Met 1-Gln 167

## Background:

Programmed cell death 1, also known as PDCD1, is a type I transmembrane glycoprotein, and is an immunoreceptor belonging to the CD28/CTLA-4 family negatively regulates antigen receptor signaling by recruiting protein tyrosine phosphatase, SHP-2 upon interacting with either of two ligands, PD-L1 or PD-L2. PD1 inhibits the T-cell proliferation and production of related cytokines including IL, IL-4, IL0 and IFN- $\gamma$  by suppressing the activation and transduction of PI3K/AKT pathway. In addition, coligation of PD1 inhibits BCR-mediated signal by dephosphorylating key signal transducer. PD1 has been suggested to be involved in lymphocyte clonal selection and peripheral tolerance, and thus contributes to the prevention of autoimmune diseases. Furthermore, PD1 is shown to be a regulator of virus-specific CD8+ T cell survival in HIV infection. 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.