Recombinant Human PDCD1 protein, His-tagged

**PDCD1-472H  Human(PDCD1)**

Lot. No. (See product label)

**PRODUCT INFORMATION**

**Product Overview**
Recombinant Human PDCD1(1 - 288 aa) fused with His tag at N-terminal was expressed in E. coli.

**Description**
This gene encodes a cell surface membrane protein of the immunoglobulin superfamily. This protein is expressed in pro-B-cells and is thought to play a role in their differentiation. In mice, expression of this gene is induced in the thymus when anti-CD3 antibodies are injected and large numbers of thymocytes undergo apoptosis. Mice deficient for this gene bred on a BALB/c background developed dilated cardiomyopathy and died from congestive heart failure. These studies suggest that this gene product may also be important in T cell function and contribute to the prevention of autoimmune diseases.

**Source**
E. coli

**Species**
Human

**Tag**
His

**Form**
Protein lyophilized in sterile PBS (58 mM Na2HPO4, 17 mM NaH2PO4, 68 mM NaCl, 300 mM Imidazole, pH 8.0). Trehalose (5-8%) and mannitol (5-8%) protectants were added before lyophilization.

**Molecular Mass**
38 kDa

**Protein length**
1 - 288 aa

**AA Sequence**
MQIPQAPWPVWAVLQLGWRPGWFLDSPDPRPWNPTFSPLLVLVTEDNATTSSTSFSFSELN
WYRMSPSNQTDKLAAPFEDRSPQPGDCFRVTQPLPNGRDFHMSVRRNRNSQTYLCAISLAPKA
QIKESLRAELRVVERAEPTAHPSPSRPAGQFWQLVGVGGLLSSLLVLWVLAVICMRARRRTI
GARRTGQPLKEDPSAVPVFSVDYELDFQWREKTPEPPVPCVEQTETAYATIFPSGMGTSSPARRG
SADGPRSAQFLRPEDGHCWPL

**Purity**
> 80%, by SDS-PAGE with Coomassie Brilliant Blue staining.

**PACKAGING**

**Storage**
Store for up to 12 months at -20 °C to -80 °C as lyophilized powder.

**Reconstitution**
Reconstitute at 0.25 µg/µl in 200 µl sterile water for short-term storage.
Reconstitution with 200 µl 50% glycerol solution is recommended for longer term storage (see Stability and Storage for more details).
If a different concentration is needed for your purposes please adjust the reconstitution volume as required (please note: the ion concentration of the final solution will vary according to the volume used).
Note: Centrifuge vial before opening. When reconstituting, gently pipet and wash down the sides of the vial to ensure full recovery of the protein into solution.
Storage of Reconstituted Protein:
Short-term storage: Store at 2-8 °C for two weeks.
Long-term storage: Aliquot and store at -20 °C to -80 °C for up to 6 months, buffer containing 50% glycerol is recommended for reconstitution. Avoid repeat freeze-thaw cycles.

**Shipping**
The product is shipped at ambient temperature. Upon receipt, store it immediately at the recommended temperature (see below).

**ANTIGEN GENE INFORMATION**

**Gene Name**
PDCD1 programmed cell death 1 [ Homo sapiens ]
**Official Symbol**  PDCD1

**Synonyms**  PDCD1; programmed cell death 1; programmed cell death protein 1; CD279; PD1; protein PD-1; PD-1; SLEB2; hPD-1; hPD-1;

**GeneID**  5133

**mRNA Refseq**  NM_005018

**Protein Refseq**  NP_005009

**MIM**  600244

**UniProt ID**  Q15116

**Chromosome Location**  2q37.3

**Pathway**  Adaptive Immune System, organism-specific biosystem; Cell adhesion molecules (CAMs), organism-specific biosystem; Cell adhesion molecules (CAMs), conserved biosystem; Costimulation by the CD28 family, organism-specific biosystem; Immune System, organism-specific biosystem; PD-1 signaling, organism-specific biosystem; T cell receptor signaling pathway, organism-specific biosystem;

**Function**  protein binding; protein tyrosine phosphatase activity; signal transducer activity;

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**REFERENCES**


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**IMAGES**
10 L sample was subjected to SDS-PAGE, followed by Coomassie Brilliant Blue staining.