

Recombinant Human PDCD1 protein, His-tagged

Cat. No. PDCD1-472H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human PDCD1(1 - 288 aa) fused with His tag at N-terminal was expressed in E. coli.
Species	Human
Source	E.coli
ProteinLength	1 - 288 aa
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.
Form	Protein lyophilized in sterile PBS (58 mM Na ₂ HPO ₄ , 17 mM NaH ₂ PO ₄ , 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
AA Sequence	MQIPQAPWPVWVAVLQLGWRPGWFLDSPDRPWNPTTFSPALLVVTEGDNATFTCS

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FSNTSESFVLNWYRMSPSNQ TDKLAAPEDRSQPGQDCRFRVTQLPNGRDFHMS
VVRARRNDSTYLCGAISLAPKAQIKESLRAELRVTERRAE VPTAHPSPSPRPAGQ
FQTLVVGVVGGLLGSLVLLVWVLAVICSRAARGTIGARRTGQPLKEDPSAVPVFSVD
YGE LDFQWREKTPEPPVPCVPEQTEYATIVFPSGMGTSSPARRGSADGPRSAQPL
RPEDGHCSWPL

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

Storage Store for up to 12 months at -20 centigrade to -80 centigrade 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 centigrade for two weeks. Long-term storage: Aliquot and store at -20 centigrade to -80 centigrade 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).

GENE INFORMATION

Gene Name PD CD1 programmed cell death 1 [Homo sapiens]

Official Symbol PD CD1

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Synonyms	PDCD1; programmed cell death 1; programmed cell death protein 1; CD279; PD1; protein PD-1; PD-1; SLEB2; hPD-1; hPD-I;
Gene ID	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;