

Recombinant Human PDCD1 Protein, His-Tagged

Cat. No. PDCD1-02H Lot. No. (See product label)

SPECIFICATION

Product Overview	Recombinant Human PDCD1 Protein, His-Tagged was expressed in HEK293 cell
Species	Human
Source	HEK293
Description	<p>Programmed cell death protein 1 (PDCD1) is an immune-inhibitory receptor expressed in activated T cells; it is involved in the regulation of T-cell functions, including those of effector CD8+ T cells. In addition, this protein can also promote the differentiation of CD4+ T cells into T regulatory cells. PDCD1 is expressed in many types of tumors including melanomas, and has demonstrated to play a role in anti-tumor immunity. Moreover, this protein has been shown to be involved in safeguarding against autoimmunity, however, it can also contribute to the inhibition of effective anti-tumor and anti-microbial immunity.</p>
Form	Lyophilized
Molecular Mass	Recombinant protein has a calculated molecular weight of about 16 kDa. Due to the abundant glycosylation, it migrates as approximately 30-40 kDa protein bands in SDS-PAGE under DTT, beta-mercaptoethanol reducing conditions.
Endotoxin	Not determined
Purity	>95%

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Applications	Protein-protein Interaction, Post-translational Modifications, ELISA, EIA, Western Blotting, Dot Blotting, Immunoprecipitation, Protein Array, etc.
Usage	This product is furnished for LABORATORY RESEARCH USE ONLY. Not for diagnostic or therapeutic use.
Storage	Upon arrival, the lyophilized protein may be stored for 2 weeks at 4°C. For long term storage, it is recommended to store desiccated below -20 °C in a manual defrost freezer. Following reconstitution, the protein may be stored for 2 weeks under sterile conditions at -20 °C. For long term storage, it is recommended to make appropriate aliquots and store at -80 °C. Avoid repeated freeze-thaw cycles.
Concentration	Determined by Pierce BCA protein assay kit
Storage Buffer	Lyophilized from a 0.2 µ filtered solution in PBS
Preservative	None
Reconstitution	Briefly spin the vial and bring the contents to the bottom prior to opening. It is recommended to reconstitute at 0.5 - 1 mg/mL with sterile deionized water.
Shipping	Ice packs
Purity determined by	SDS-PAGE under reducing conditions and visualized by Coomassie blue staining
Purification	His-tag affinity purification by immobilized metal ion affinity chromatography (IMAC)
Expressed Region	Pro21-Val170

GENE INFORMATION

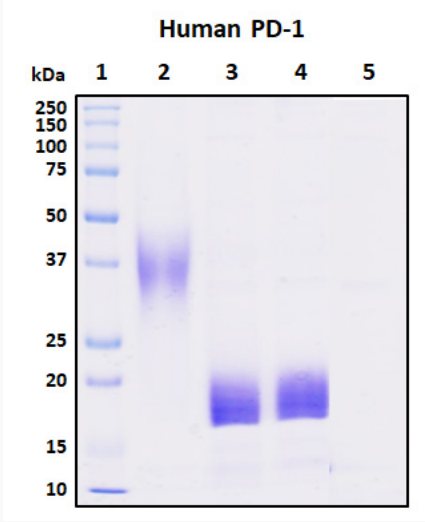
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Gene Name	PDCD1 programmed cell death 1 [Homo sapiens (human)]
Official Symbol	PDCD1
Synonyms	Programmed cell death protein 1 (Protein PD-1) (hPD-1) (CD antigen CD279), Programmed cell death protein 1, Protein PD-1, hPD-1, Programmed Cell Death 1, Systemic Lupus Erythematosus Susceptibility 2, HPD-1, PD1, Programmed Cell Death 1 Protein, CD279 Antigen, CD279, HPD-L, HSLE1, SLEB2, PD-1
Gene ID	5133
mRNA Refseq	NM_005018.3
Protein Refseq	NP_005009.2
MIM	600244
UniProt ID	Q15116

SDS-PAGE Image



Human PD-1

kDa 1 2 3 4 5

250
150
100
75
50
37
25
20
15
10

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Figure 1. Deglycosylation of purified recombinant proteins. Purified proteins were untreated (Lane 2) or treated with protein deglycosylation enzymes under native (Lane 3) or reducing (Lane 4) conditions. Deglycosylation treatment resulted in a mobility shift of the protein to produce one major band at the expected size, thus indicating that the untreated recombinant protein (Lane 2) was glycosylated.

Lane 1: Protein standard ladder (kDa).

Lane 2: Untreated protein under reducing conditions.

Lane 3: Treated protein with deglycosylation enzymes under native conditions.

Lane 4: Treated protein with deglycosylation enzymes under reducing conditions.

Lane 5: Deglycosylation mixture only without target proteins.