

## Human CellExp™ PD-1 /PDCD1, C-Fc Tag, human recombinant

<b>CATALOG #:</b>	7500-10	10 µg
	7500-50	50 µg
<b>ALTERNATE NAMES:</b>	PDCD1, PD1, CD279, SLEB2, hPD-1, hPD-I	
<b>SOURCE:</b>	HEK 293 cells (Pro 21 – Gln 167)	
<b>PURITY:</b>	≥ 95% by SDS-PAGE gel	

**MOL. WEIGHT:** This protein fused with Fc fragment of human IgG1 at the C-terminus, has a calculated MW of 42.6 kDa. The predicted N-terminus is Pro 21. DTT-reduced protein migrates as 50-66 kDa due to glycosylation.

**ENDOTOXIN LEVEL:** <1 EU/µg by LAL method

**FORM:** Lyophilized

**FORMULATION:** Lyophilized from 0.22 µm filtered solution in 50 mM Tris, 100 mM glycine, pH 7.5. Normally Mannitol or Trehalose is added as protectants before lyophilization.

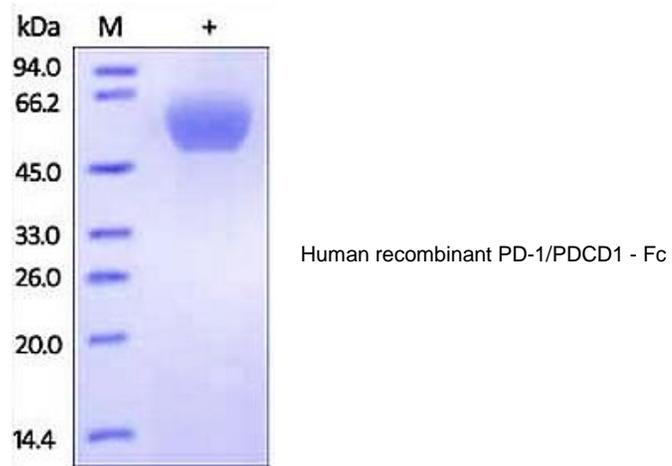
**STORAGE CONDITIONS:** Store at -20°C. After reconstitution, aliquot and store at -20°C or -70°C for up to 3 months. Avoid repeated freezing and thawing cycles.

**RECONSTITUTION:** Centrifuge the vial prior to opening. Reconstitute in PBS, pH 7.4. Do not vortex.

**DESCRIPTION:** Programmed cell death protein 1 (PD-1) is also known as CD279 and PDCD1, is a type I membrane protein and is a member of the extended CD28/CTLA-4 family of T cell regulators. PDCD1 is expressed on the surface of activated T cells, B cells, macrophages, myeloid cells and a subset of thymocytes. PD-1 has two ligands, PD-L1 and PD-L2, which are members of the B7 family. PD-L1 is expressed on almost all murine tumor cell lines, including PA1 myeloma, P815 mastocytoma, and B16 melanoma upon treatment with IFN-γ. PD-L2 expression is more restricted and is expressed mainly by DCs and a few tumor lines. PD1 inhibits the T-cell proliferation and production of related cytokines including IL-1, IL-4, IL-10 and IFN-γ by suppressing the activation and transduction of PI3K/AKT pathway. In addition, coligation of PD1 inhibits BCR-mediated

signal by dephosphorylating key signal transducer. In vitro, treatment of anti-CD3 stimulated T cells with PD-L1-Ig results in reduced T cell proliferation and IFN-γ secretion. Monoclonal antibodies targeting PD-1 that boost the immune system are being developed for the treatment of cancer. This protein is suitable for use in protein studies such as protein structure analysis and protein-protein interactions. It can also be used as an immunogen, as a protein standard, or in cell biology research applications.

**BIOLOGICAL ACTIVITY:** Measured by its binding ability in a functional ELISA. Immobilized human PD1, c-Fc Protein at 2 µg/ml can bind PD-L1, c-Fc Tag (Catalog # 7429) with a linear range of 0.05–0.5 µg/ml



**RELATED PRODUCTS:**

- Human CellExp™ PD-1 /PDCD1, human recombinant (Cat. No. 7498-10, -50)
- Human CellExp™ PD-1 /PDCD1, mouse recombinant (Cat. No. 7499-10, -50)
- Human CellExp™ PD-1 /PDCD1, C-Fc Tag, mouse recombinant (Cat. No. 7501-10, -50)
- Human CellExp™ PD-1, Fc Tag, Biotinylated, human recombinant (Cat. No. 7502-10, -50)
- PD-1/PDCD1 Antibody (Cat # 6931-50)
- Human CellExp™ PD-L1 /CD274, human recombinant (Cat. No. 7429-10, -50)
- Human CellExp™ CD223, human recombinant (Cat. No. 7278-10, -50)
- Human CellExp™ CD71, human recombinant (Cat. No. 7279-10, -50)
- Human CellExp™ CD273, human recombinant (Cat. No. 7369-10, -50)
- Human CellExp™ CD33, human recombinant (Cat. No. 7370-10, -50)
- Human CellExp™ CD36, human recombinant (Cat. No. 7371-10, -50)
- Human CellExp™ CD87, human recombinant (Cat. No. 7372-20, -100)

**FOR RESEARCH USE ONLY! Not to be used in humans.**