

# Recombinant Rat Pdcd1 Protein, hFc-tagged, FITC conjugated

Cat. No. Pdcd1-560RF Lot. No. (See product label)

## SPECIFICATION

**Product Overview** FITC conjugated recombinant Rat Pdcd1 (Leu25-Gln167) protein was fused to human IgG1 Fc tag at C-terminus and expressed in human 293 cells (HEK293).

**Species** Rat

**Source** HEK293

**ProteinLength** Leu25-Gln167

### 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- $\gamma$ . 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- $\gamma$  by suppressing the activation and transduction of PI3K/AKT pathway. In addition, coligation of PD1 inhibits BCR-mediated signal by dephosphorylating key signal transducer. In vitro, treatment of anti-CD3 stimulated T cells with PD-L1-Ig results in reduced T cell proliferation and IFN- $\gamma$  secretion. Monoclonal antibodies targeting PD-1 that boost the immune system are being developed for the treatment of cancer.

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<b>Form</b>	Lyophilized
<b>Molecular Mass</b>	The protein has a calculated MW of 42.9 kDa. The protein migrates as 50-60 kDa under reducing (R) condition (SDS-PAGE).
<b>N-terminal Sequence Analysis</b>	Leu 25
<b>Endotoxin</b>	< 1.0 EU/ µg by the LAL method.
<b>Purity</b>	> 95 % as determined by SDS-PAGE
<b>Characteristic</b>	<p>Disulfide-linked homodimer</p> <p>Labeled with FITC via amines</p> <p>Excitation source: 488 nm spectral line, argon-ion laser</p> <p>Excitation Wavelength: 488 nm</p> <p>Emission Wavelength: 535 nm</p>
<b>Storage</b>	<p>For long term storage, the product should be stored at lyophilized state at -20 centigrade or lower.</p> <p>Please avoid repeated freeze-thaw cycles.</p> <p>This product is stable after storage at:</p> <p>-20 to -70 centigrade for 12 months in lyophilized state;</p> <p>-70 centigrade for 3 months under sterile conditions after reconstitution.</p>
<b>Storage Buffer</b>	Lyophilized from 0.22 µm filtered solution in Tris with Glycine, Arginine and NaCl, pH7.5, 10% trehalose.
<b>Reconstitution</b>	It is recommended that sterile water be added to the vial to prepare a stock solution of 0.2 µg/µL. Centrifuge the vial at 4 centigrade before opening to recover the entire contents.

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**Conjugation** FITC

## GENE INFORMATION

**Gene Name** [Pdcd1](#)

**Official Symbol** [Pdcd1](#)

**Synonyms** PDCD1; programmed cell death 1; programmed cell death protein 1

**Gene ID** [301626](#)

**mRNA Refseq** [NM\\_001106927](#)

**Protein Refseq** [NP\\_001100397](#)

**UniProt ID** [D3ZIN8](#)

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