

## Recombinant Rat Pdcd1 protein, Fc-tagged

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

### SPECIFICATION

<b>Product Overview</b>	Recombinant Rat Pdcd1 (Leu25-Gln167) protein was fused to human IgG1 Fc tag at C-terminus and expressed in human 293 cells (HEK293).
<b>Species</b>	Rat
<b>Source</b>	HEK293
<b>ProteinLength</b>	Leu25-Gln167
<b>Description</b>	<p>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-<math>\gamma</math>. 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-<math>\gamma</math> 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-<math>\gamma</math> secretion. Monoclonal antibodies targeting PD-1 that boost the immune system are being developed for the treatment of cancer.</p>

 Tel: 1-631-559-9269    1-516-512-3133

 Email: [info@creative-biomart.com](mailto:info@creative-biomart.com)     Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

<b>Predicted N Terminal</b>	Leu25
<b>Form</b>	Lyophilized from 0.22 µm filtered solution in Tris with Glycine, Arginine and NaCl, pH7.5, 10% trehalose.
<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>Endotoxin</b>	Less than 1.0 EU per µg by the LAL method.
<b>Purity</b>	>95% as determined by SDS-PAGE.
<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>Reconstitution</b>	It is recommended that sterile water be added to the vial to prepare a stock solution of 0.2 ug/ul. Centrifuge the vial at 4°C before opening to recover the entire contents.

## GENE INFORMATION

<b>Gene Name</b>	Pdcd1
<b>Official Symbol</b>	Pdcd1
<b>Synonyms</b>	PDCD1; programmed cell death 1; programmed cell death protein 1
<b>Gene ID</b>	301626

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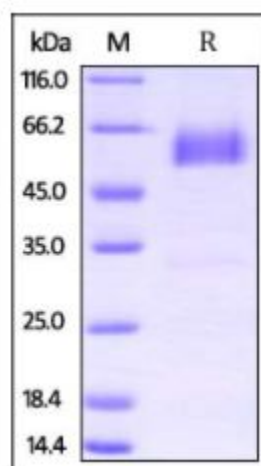
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mRNA Refseq [NM\\_001106927](#)

Protein Refseq [NP\\_001100397](#)

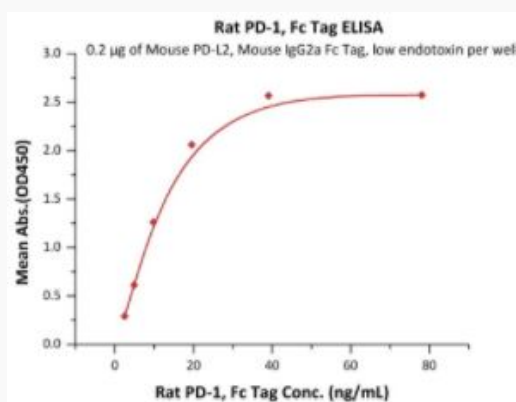
UniProt ID [D3ZIN8](#)

#### SDS-PAGE of Pdcd1-560R



Rat PD-1, Fc Tag on SDS-PAGE under reducing (R) condition. The gel was stained overnight with Coomassie Blue. The purity of the protein is greater than 95%.

#### Bioactivity-ELISA of Pdcd1-560R




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Immobilized Mouse PD-L2, Mouse IgG2a Fc Tag, low endotoxin at 2 µg/mL (100 µL/well) can bind Rat PD-1, Fc Tag with a linear range of 2-20 ng/mL (QC tested).

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