

Recombinant Rat Pdcd1 protein, Fc-tagged

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

SPECIFICATION

Product Overview	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-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-mediating 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.

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Predicted N Terminal	Leu25
Form	Lyophilized from 0.22 µm filtered solution in Tris with Glycine, Arginine and NaCl, pH7.5, 10% trehalose.
Molecular Mass	The protein has a calculated MW of 42.9 kDa. The protein migrates as 50-60 kDa under reducing (R) condition (SDS-PAGE).
Endotoxin	Less than 1.0 EU per µg by the LAL method.
Purity	>95% as determined by SDS-PAGE.
Storage	For long term storage, the product should be stored at lyophilized state at -20 centigrade or lower. Please avoid repeated freeze-thaw cycles. This product is stable after storage at: -20 to -70 centigrade for 12 months in lyophilized state; -70 centigrade for 3 months under sterile conditions after reconstitution.
Reconstitution	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

Gene Name	Pdcd1
Official Symbol	Pdcd1
Synonyms	PDCD1; programmed cell death 1; programmed cell death protein 1
Gene ID	301626

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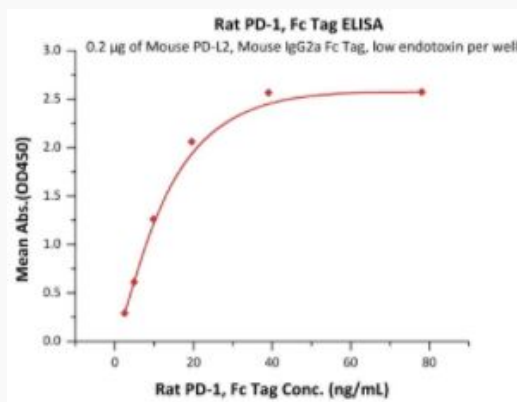
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mRNA Refseq [NM_001106927](#)

Protein Refseq [NP_001100397](#)

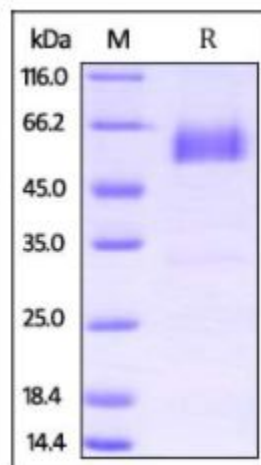
UniProt ID [D3ZIN8](#)

Bioactivity-ELISA of Pdcd1-560R



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).

SDS-PAGE of Pdcd1-560R



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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%.

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