

## Product datasheet for **TP724666**

### **Pdcd1 Rat Recombinant Protein**

#### **Product data:**

<b>Product Type:</b>	Recombinant Proteins
<b>Description:</b>	Recombinant Rat PD-1 (C-His)
<b>Species:</b>	Rat
<b>Expression cDNA Clone or AA Sequence:</b>	Leu25-Gln167
<b>Tag:</b>	C-His
<b>Buffer:</b>	Lyophilized from a 0.2 µm filtered solution of PBS, pH 7.4.
<b>Note:</b>	Recombinant Rat PD-1 (C-His) is produced by Human Cells. The target gene encoding Leu25-Gln167 is expressed with a C-His tag.
<b>Storage:</b>	Lyophilized protein should be stored at < -20°C, though stable at room temperature for 3 weeks. Reconstituted protein solution can be stored at 4-7°C for 2-5 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.
<b>Stability:</b>	12 months from date of despatch
<b>RefSeq:</b>	<a href="#">NP_001100397.1</a>
<b>Summary:</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>\hat{\beta}</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>\hat{\beta}</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>\hat{\beta}</math> secretion. Monoclonal antibodies targeting PD-1 that boost the immune system are being developed for the treatment of cancer.</p>



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