

Product datasheet for **TP727304**

Pdcd1 Mouse Recombinant Protein

Product data:

Product Type:	Recombinant Proteins
Description:	Recombinant Mouse PDCD1/PD-1/CD279 (C-Fc)
Species:	Mouse
Expression cDNA Clone or AA Sequence:	Leu25-Gln167
Tag:	C-Fc
Buffer:	Lyophilized from a 0.2 um filtered solution of 20mM Tris-HCl, 150mM NaCl, pH 8.0.
Note:	Recombinant Mouse Programmed Cell Death Protein 1 is produced by our Mammalian expression system and the target gene encoding Leu25-Gln167 is expressed with a Fc tag at the C-terminus.
Stability:	12 months from date of despatch
Locus ID:	18566
UniProt ID:	Q02242
Summary:	<p>Programmed Death-1 (PD-1), firstly cloned from mouse T cell hybridoma 2B4.11, is one member of CD28/CTLA-4 superfamily. PD-1 belongs to type I transmembrane protein and acts as an important immunosuppressive molecule. This family also include members of CD28, CTLA-4 and ICOS. The mouse Programmed Death-1 protein, encoded by PD-1 gene, comprises four parts including a putative 20 aa signal peptide, a 149 aa extracellular region, a 21 aa transmembrane domain and a 98 aa cytoplasmic region. The cytoplasmic tail of PD-1 contains two structural motifs, an immunoreceptor tyrosine-based inhibitory motif (ITIM) and an immunoreceptor tyrosine-based switch motif (ITSM) formed by two tyrosine residues which make the difference in PD-1 signal mediating. Mouse PD-1 is expressed in thymus and shares about 69% aa sequence identity with human PD-1. Recently, programmed death-1 (PD-1) with its ligands, programmed death ligand B7H1 (PD-L1) and B7DC (PD-L2), was found to regulate T-cell activation and tolerance, upon ligand binding, inhibiting T-cell effector functions in an antigen-specific manner. PD-1 gene knocked out mice would induce some autoimmune diseases, which suggests that PD-1 acts as a co-inhibitory molecule actively participating in maintaining peripheral tolerance. Thus, PD-1 may be a useful target for the immunologic therapy of carcinoma, infection, autoimmune diseases as well as organ transplantation.</p>



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