

## 32-8568: Recombinant Mouse PDCD1/PD-1/CD279 (C-Fc)

**Gene :** Pdccl1  
**Gene ID :** 18566  
**Uniprot ID :** Q02242

### Description

Source: Human Cells.  
MW :43.3kD.

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. 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.

### Product Info

**Amount :** 10 µg / 50 µg  
**Content :** Lyophilized from a 0.2 µm filtered solution of 20mM Tris, 150mM NaCl, pH8.0.  
**Storage condition :** 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 2-7 days. Aliquots of reconstituted samples are stable at -20°C for 3 months.  
**Amino Acid :** LEVPNGPWRS�TFYPAWLTVSEGANATFTCSLSNWSEDLMLNWNRLSPSNQTEKQAAFCNGLSQPVQDARF QIIQLPNRHDFHMNILDTRRNDSGIYLCGAISLHPKAKIEESPGAELVVTERILETSTRYPSPSPKPEGRFQVDDIE GRMDEPKSCDKTHTCPPCPAPPELLGGPSVFLFPPPKDITLMSRTPEVTCVVVDVSHEDPEVKFNWYVDGVEV HNAKTKPREEQYNSTYRVVSVLTVLHQDWLNGKEYKCKVSNKALPAPIEKTISKAKGQPREPQVYTLPPSREEM TKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTTPVLDSDGSFFLYSKLTVDKSRWQQGNVFCSCVMHEA LHNHYTQKSLSLSPGK

### Application Note

**Endotoxin :** Less than 0.1 ng/µg (1 IEU/µg) as determined by LAL test.