



Recombinant Protein Technical Manual

Recombinant Mouse PD/PDCD1 Protein (Fc Tag)(Active)
RPES0833

Product Data:

Product SKU: RPES0833

Size: 10µg

Species: Mouse

Expression host: Human Cells

Uniprot: Q02242

Protein Information:

Molecular Mass: 43.3 kDa

AP Molecular Mass: 58-85 kDa

Tag: C-Fc

Bio-activity: Immobilized Human PD-L1-His(Cat: PKSH033557) at 2µg/ml(100 µl/well) can bind Mouse PD-Fc.

Purity: > 95% as determined by reducing SDS-PAGE.

Endotoxin: < 1.0 EU per µg as determined by the LAL method.

Storage: 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.

Shipping: This product is provided as lyophilized powder which is shipped with ice packs.

Formulation: Lyophilized from a 0.2 µm filtered solution of 20mM Tris,150mM NaCl,pH8.0.

Reconstitution: Please refer to the printed manual for detailed information.

Application: Functional ELISA

Synonyms: Programmed cell death protein 1;PD;CD279;Pdcd1;mPD

Immunogen Information:

Sequence: Leu25-Gln167

Background:

Programmed Death (PD), firstly cloned from mouse T cell hybridoma 2B4.11, is one member of CD28/CTLA-4 superfamily. PD 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 protein, encoded by PD 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 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 signal mediating. Mouse PD is expressed in thymus and shares about 69% aa sequence identity with human PD. Recently, programmed death (PD) 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 gene knocked out mice would induce some autoimmune diseases, which suggests that PD acts as a co-inhibitory molecule actively participating in maintaining peripheral tolerance. Thus, PD may be a useful target for the immunologic therapy of carcinoma, infection, autoimmune diseases as well as organ transplantation.