



PDCD1 Recombinant Protein

Cat. No.: 92-495



Ψ Specifications

SPECIES:	Mouse
SOURCE SPECIES:	Human Cells
SEQUENCE:	Leu25-Gln167
FUSION TAG:	C-Fc tag
TESTED APPLICATIONS:	
APPLICATIONS:	This recombinant protein can be used for biological assays. For research use only.
PREDICTED MOLECULAR WEIGHT:	43.3 kD

Ψ Properties

PURITY:	Greater than 95% as determined by reducing SDS-PAGE. Endotoxin level less than 0.1 ng/ug (1 IEU/ug) as determined by LAL test.
PHYSICAL STATE:	Lyophilized
BUFFER:	Lyophilized from a 0.2 um filtered solution of 20mM Tris,150mM NaCl,pH8.0. It is not recommended to reconstitute to a concentration less than 100 ug/ml. Dissolve the lyophilized protein in ddH2O.

STORAGE CONDITIONS:	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.
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Ψ Additional Info

OFFICIAL SYMBOL:	Pdcd1
ALTERNATE NAMES:	Programmed cell death protein 1, PD-1, CD279, Pdcd1, mPD-1
ACCESSION NO.:	Q02242
GENE ID:	18566

Ψ Background and References

BACKGROUND:	<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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