Recombinant Mouse PD-1
Catalog # CJ98
Derived from Human Cells

DESCRIPTION
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 6His tag at the C-terminus.
Accession #: Q02242
Known as: Programmed cell death protein 1;PD-1;CD279;Pdcd1;mPD-1

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

SHIPPING
The product is shipped at ambient temperature.
Upon receipt, store it immediately at the temperature listed below.

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.

RECONSTITUTION
Always centrifuge tubes before opening. Do not mix by vortex or pipetting.
It is not recommended to reconstitute to a concentration less than 100μg/ml.
Dissolve the lyophilized protein in distilled water.
Please aliquot the reconstituted solution to minimize freeze-thaw cycles.

QUALITY CONTROL
Purity: Greater than 95% as determined by reducing SDS-PAGE.
Endotoxin: Less than 0.1 ng/μg (1 IEU/μg).

AMINO ACID SEQUENCE
LEVPNGPWRSLTFYPAPWTVSEGATCFLSNSWSDLMLNWRLPSNQTEKAAFCNGSLQPVQDARFQFLQLPNRHD
FHMNILDTRNDGIIYLCGAISLHPKAKIEESPGAELVTERILESTRYPSSPKPGRFQVDHHHHHH

BACKGROUND
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. 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.

SDS-PAGE

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