

Recombinant Rat PD-1/PDCD1/CD279 Protein

Catalog No.: RP01506 **Recombinant**

Sequence Information

Species	Gene ID	Swiss Prot
Rat	301626	D3ZIN8

Tags

C-His

Synonyms

CD279;mPD-1;SLEB2;PDCD1;PD1;PDCD1

Product Information

Source	Purification
HEK293 cells	> 95% by SDS-PAGE.

Endotoxin

<0.1EU/μg


Formulation

Lyophilized from a 0.22 μm filtered solution of PBS, pH 7.4.

Reconstitution

Centrifuge the vial before opening. Reconstitute to a concentration of 0.1-0.5 mg/mL in sterile distilled water. Avoid vortex or vigorously pipetting the protein. For long term storage, it is recommended to add a carrier protein or stabilizer (e.g. 0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose), and aliquot the reconstituted protein solution to minimize freeze-thaw cycles.

Contact

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Background

Programmed cell death 1, also known as PDCD1, is a type I transmembrane glycoprotein, and is an immunoreceptor belonging to the CD28/CTLA-4 family negatively regulates antigen receptor signaling by recruiting protein tyrosine phosphatase, SHP-2 upon interacting with either of two ligands, PD-L1 or PD-L2. PD1 inhibits the T-cell proliferation and production of related cytokines including IL-1, IL-4, IL-10 and IFN-γ by suppressing the activation and transduction of PI3K/AKT pathway. In addition, coligation of PD1 inhibits BCR-mediating signal by dephosphorylating key signal transducer. PD1 has been suggested to be involved in lymphocyte clonal selection and peripheral tolerance, and thus contributes to the prevention of autoimmune diseases. Furthermore, PD1 is shown to be a regulator of virus-specific CD8+ T cell survival in HIV infection. As a cell surface molecule, PDCD1 regulates the adaptive immune response. Engagement of PD-1 by its ligands PD-L1 or PD-L2 transduces a signal that inhibits T-cell proliferation, cytokine production, and cytolytic function.

Basic Information

Description

Recombinant Rat PD-1/PDCD1/CD279 Protein is produced by HEK293 cells expression system. The target protein is expressed with sequence (Leu25-Gln167) of rat PD-1 (Accession #NP_001100397.1) fused with a 6×His tag at the C-terminus.

Bio-Activity

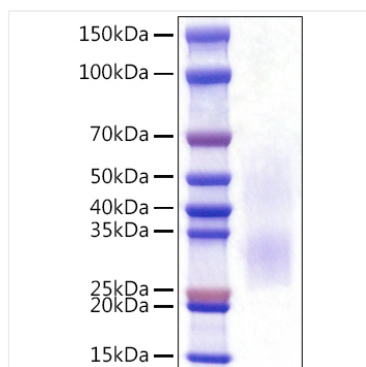
Storage

Store the lyophilized protein at -20°C to -80°C for 12 months.

After reconstitution, the protein solution is stable at -20°C for 3 months, at 2-8°C for up to 1 week.

Avoid repeated freeze/thaw cycles.

Validation Data



Recombinant Rat PD-1/PDCD1/CD279 Protein was determined by SDS-PAGE with Coomassie Blue, showing a band at 30-50kDa.