

PD-1 Protein, Human, Recombinant (His & Avi), Biotinylated

General Information

Synonyms:	Programmed cell death protein 1;PDCD1;CD279;hPD-1
Protein Construction:	Pro21-Gln167
Species:	Human
Expression Host:	HEK293 Cells
Accession:	Q15116
Molecular Weight:	35-45 KDa (reducing condition)
AA Sequence:	Pro21-Gln167

QC Testing

Biological Activity:	Loaded Anti-Human PD-1 mAb-Fc on Protein A Biosensor, can bind Biotinylated Human PD-1-His with an affinity constant of 1.54 nM as determined in BLI assay. (Regularly tested)
Purity:	Greater than 95% as determined by reducing SDS-PAGE. (QC verified)
Endotoxin:	< 0.1 ng/μg (1 EU/μg) as determined by LAL test.
Formulation:	Lyophilized from a solution filtered through a 0.22 μm filter, containing PBS, pH 7.4.

Preparation and Storage

Reconstitution:

Reconstitute the lyophilized protein in distilled water. The product concentration should not be less than 100 μg/ml. Before opening, centrifuge the tube to collect powder at the bottom. After adding the reconstitution buffer, avoid vortexing or pipetting for mixing.

Stability & Storage:

Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

Protein Background

Programmed cell death protein 1(PDCD1) is a single-pass type I membrane protein and contains 1 Ig-like V-type domain. PD-1 is a member of the extended CD28/CTLA-4 family of T cell regulators. PDCD1 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 PDCD1 inhibits BCR-mediated signal by dephosphorylating key signal transducer. PDCD1 has been suggested to be involved in lymphocyte clonal

selection and peripheral tolerance, and thus contributes to the prevention of autoimmune diseases. 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.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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