Recombinant Human PD-1/PDCD1 Protein (His Tag)

Catalog Number: PKSH031642

Note: *Centrifuge before opening to ensure complete recovery of vial contents.*

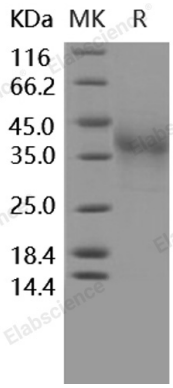
Description

Species	Human
Source	HEK293 Cells-derived Human PD-1/PDCD1 protein Met 1-Gln 167, with an C-terminal His
Calculated MW	17.4 kDa
Accession	NP_005009.2
Bio-activity	Immobilized human PD-1 at 10 μg/ml (100 μl/well) can bind recombinant human B7-H1 / PD-L1 / Fc chimera with a linear range of 0.02-0.4 μg/ml.

Properties

Purity	> 95 % as determined by reducing SDS-PAGE.
Endotoxin	< 1.0 EU per μg of the protein as determined by the LAL method.
Storage	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80 ℃. Reconstituted protein solution can be stored at 4-8℃ for 2-7 days. Aliquots of reconstituted samples are stable at < -20℃ for 3 months.
Shipping	This product is provided as lyophilized powder which is shipped with ice packs.
Formulation	Lyophilized from sterile PBS, pH 7.4 Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual.
Reconstitution	Please refer to the printed manual for detailed information.

Data



> 95 % as determined by reducing SDS-PAGE.

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.

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