Active Recombinant Human PDCD1 Protein, His&Avi tagged

Cat. No. PDCD1-76H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	PD-1 dimer protein contains a PD-1 extracellular domain (UniProt# Q15116) fused with a proprietary dimer motif followed by a tandem His-Avi tag at the C-terminus.
Species	Human
Source	HEK293T
ProteinLength	25-170 aa
Description	Human programmed cell death protein 1 (PD-1), is a Type I membrane protein and cell surface receptor on T cells and B cells and belongs to the immunoglobulin superfamily. PD-1 is also known as PDCD1, cluster of differentiation 279 (CD279), systemic lupus erythematosus susceptibility 2 (SLEB2), and systemic lupus erythematosus susceptibility (hSLE1). PD-1 contains an extracellular immunoglobulin-V-like (Ig-V-like) domain followed by a transmembrane region, and an intracellular tail. PD-1 is an immune checkpoint that binds two ligands, PD-L1 and PD-L2, which are members of the B7 family. PD-L1 serves as an immunosuppressive ligand for PD-1 and the overexpression of PD-L1 on many tumor cells can prevent the immune system from attacking tumors. Inhibition of the interaction between PD-1 and PD-L1 can enhance antitumor activity, which has led to a new class of drugs called PD-1 inhibitors to activate the immune system and treat certain types of cancer. Although previously considered monomeric, PD-1 has been shown to have a propensity for forming homodimers and this homodimerization increases the potency of its activity.

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	Therefore, a recombinant protein mimicking the PD-1 dimer conformation can be crucial for cancer therapeutic discovery.
Molecular Mass	52 kDa
Homodimer/Heterodimer	Homodimer
Purity	Greater than 90% dimer form as determined by SDS-PAGE under non-reducing condition
Application	Verified Applications: ELISA for PD-1-specific antibody and PD-L1 ligand protein binding assays. Suggested Applications: ELISA for PD-1-specific antibody and PD-L1 ligand protein binding assays. SPR & BLI for PD-1-specific antibody and PD-L1 protein binding assays. Animal immunization, RUO.
Storage	At -80 centigrade
Storage Buffer	0.2μm filtered PBS, pH 7.4, no preservatives
Shipping	Frozen Dry Ice

GENE INFORMATION

Gene ID	5133
Gene Name	PDCD1 programmed cell death 1 [Homo sapiens (human)]
Official Symbol	5133
Synonyms	PDCD1; programmed cell death 1; programmed cell death protein 1; CD279; PD1; protein PD-1; PD-1; SLEB2; hPD-1; hPD-l;

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mRNA Refseq	NM_005018
Official Symbol 2	PDCD1
Gene ID 2	5133
Gene Name 2	PDCD1 programmed cell death 1 [Homo sapiens (human)]
mRNA Refseq 2	NM_005018
Protein Refseq 2	NP_005009
MIM 2	600244
UniProt ID 2	Q15116
Bioactivity-Antibody Binding	Immobilized human PD-1-His-Avi dimer protein at 2 μg/mL (100 μL/well) can bind anti-human PD-1 monoclonal antibody with half maximal effective concentration (EC50) range of 5-20 ng/mL (QC tested).
Bioactivity-Ligand Binding	Immobilized human PD-1-His-Avi dimer protein at 2 μg/mL (100 μL/well) can bind human PD-L1 with half maximal effective concentration (EC50) range of 16.8-67.1 ng/mL (QC tested).
SDS-PAGE	MW: Molecular Weight marker reduced condition NR: PD-1 dimer under non-reducing condition

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