Active Recombinant Human PDCD1 Protein, Fc-tagged, Alexa Fluor 488 conjugated

Cat. No. PDCD1-191HAF488 **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Alexa Fluor 488 conjugated recombinant human PDCD1 Protein extracellular domain 21-167aa (signal peptide removed), fused with a C-terminal Fc tag, was expressed in CHO.
Species	Human
Source	CHO
ProteinLength	379
Description	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

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	production, and cytolytic function.
Form	Lyophilized
Bio-activity	Measured by its binding ability in a functional ELISA. 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.
Molecular Mass	42 kDa
N-terminal Sequence Analysis	Pro 21
Endotoxin	< 1.0 EU/ μg by the LAL method.
Purity	> 95 % as determined by SDS-PAGE
Characteristic	Disulfide-linked homodimer Labeled with Alexa Fluor 488 via amines Excitation Wavelength: 488 nm Emission Wavelength: 515-545 nm
Stability	Samples are stable for up to 12 months from date of receipt at -70 centigrade.
Storage	Store it under sterile conditions at -20 to-70 centigrade. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.
Storage Buffer	Lyophilized from sterile PBS, pH 7.4.
Reconstitution	It is recommended that sterile water be added to the vial to prepare a stock solution of 0.2 μg/μL. Centrifuge the vial at 4 centigrade before opening to recover the entire

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	contents.
Conjugation	Alexa Fluor 488

GENE INFORMATION

Gene Name	PDCD1 programmed cell death 1 [Homo sapiens]
Official Symbol	PDCD1
Synonyms	PDCD1; programmed cell death 1; programmed cell death protein 1; CD279; PD1; protein PD-1; PD-1; SLEB2; hPD-1; hPD-l;
Gene ID	5133
mRNA Refseq	NM_005018
Protein Refseq	NP_005009
MIM	600244
UniProt ID	Q15116

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