Recombinant Human PDCD1 Protein, hFc-tagged, Alexa Fluor 488 conjugated

Cat. No. PDCD1-821HAF488 **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Alexa Fluor 488 conjugated recombinant human PDCD1 protein (Leu25-Gln167)(low endotoxin, HPLC-verified), fused to human IgG1 Fc tag at C-terminus, was expressed in human 293 cells (HEK293).
Species	Human
Source	HEK293
ProteinLength	143
Description	Programmed cell death protein 1 (PD-1) is also known as CD279 and PDCD1, is a type I membrane protein and is a member of the extended CD28/CTLA-4 family of T cell regulators. PDCD1 is expressed on the surface of activated T cells, B cells, macrophages, myeloid cells and a subset of thymocytes. PD-1 has two ligands, PD-L1 and PD-L2, which are members of the B7 family. PD-L1 is expressed on almost all murine tumor cell lines, including PA1 myeloma, P815 mastocytoma, and B16 melanoma upon treatment with IFN-γ. PD-L2 expression is more restricted and is expressed mainly by DCs and a few tumor lines. 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. In vitro, treatment of anti-CD3 stimulated T cells with PD-L1-Ig results in reduced T cell proliferation and IFN-γ secretion. Monoclonal antibodies targeting PD-

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	1 that boost the immune system are being developed for the treatment of cancer.
Form	Lyophilized
Molecular Mass	The protein has a calculated MW of 42.6 kDa. The protein migrates as 56-66 kDa under reducing (R) condition (SDS-PAGE) due to glycosylation.
Endotoxin	< 0.1 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
Storage	For long term storage, the product should be stored at lyophilized state at -20 centigrade or lower. Please avoid repeated freeze-thaw cycles. This product is stable after storage at: -20 to -70 centigrade for 12 months in lyophilized state; -70 centigrade for 3 months under sterile conditions after reconstitution.
Storage Buffer	Lyophilized from 0.22 μm filtered solution in PBS, pH7.4, 10% trehalose.
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 contents.
Conjugation	Alexa Fluor 488

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GENE INFORMATION

Gene Name	PDCD1
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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