

# Recombinant Monkey PDCD1 Protein, Fc-tagged, Alexa Fluor 488 conjugated

**Cat. No.** PDCD1-1223CAF488    **Lot. No.** (See product label)

## SPECIFICATION

**Product Overview**      Alexa Fluor 488 conjugated recombinant Monkey PDCD1 (Leu25-Gln167) protein was fused to human IgG1 Fc tag at C-terminus and expressed in human 293 cells (HEK293).

**Species**      Monkey


**Source**      HEK293

**ProteinLength**      Leu25-Gln167

**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- $\gamma$ . 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- $\gamma$  by suppressing the activation and transduction of PI3K/AKT pathway. In addition, coligation of PD1 inhibits BCR-mediated 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- $\gamma$  secretion. Monoclonal antibodies targeting PD-

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|-------------------------------------|--|
|                                     | 1 that boost the immune system are being developed for the treatment of cancer.  |
| <b>Form</b>                         | Lyophilized  |
| <b>Molecular Mass</b>               | The protein has a calculated MW of 42.6 kDa. The protein migrates as 53-60 kDa under reducing (R) condition (SDS-PAGE) due to different glycosylation.   |
| <b>N-terminal Sequence Analysis</b> | Leu 25   |
| <b>Endotoxin</b>                    | < 1.0 EU/ µg by the LAL method.  |
| <b>Purity</b>                       | > 90 % as determined by SDS-PAGE   |
| <b>Characteristic</b>               | Disulfide-linked homodimer<br>Labeled with Alexa Fluor 488 via amines<br>Excitation Wavelength: 488 nm<br>Emission Wavelength: 515-545 nm  |
| <b>Storage</b>                      | For long term storage, the product should be stored at lyophilized state at -20 centigrade or lower.<br>Please avoid repeated freeze-thaw cycles.<br>This product is stable after storage at:<br>-20 to -70 centigrade for 12 months in lyophilized state;<br>-70 centigrade for 3 months under sterile conditions after reconstitution. |
| <b>Storage Buffer</b>               | Lyophilized from 0.22 µm filtered solution in 50 mM Tris, 100 mM Glycine, pH7.5, 10% trehalose.  |
| <b>Reconstitution</b>               | 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

**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-I

**Gene ID** 102123659

**mRNA Refseq** NM\_001284136

**Protein Refseq** NP\_001271065

**UniProt ID** B0LAJ3

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