



**Synonym**

PDCD1,PD1,CD279,SLEB2

**Source**

Cynomolgus PD-1, Fc Tag(PD1-C5254) is expressed from human 293 cells (HEK293). It contains AA Leu 25 - Gln 167 (Accession # [B0LAJ3](#)).

Predicted N-terminus: Leu 25

**Molecular Characterization**

PD-1(Leu 25 - Gln 167) B0LAJ3	Fc(Pro 100 - Lys 330) P01857
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This protein carries a human IgG1 Fc tag at the C-terminus.

The protein has a calculated MW of 42.6 kDa. The protein migrates as 55-66 kDa under reducing (R) condition (SDS-PAGE) due to glycosylation.

**Endotoxin**

Less than 1.0 EU per µg by the LAL method.

**Purity**

>90% as determined by SDS-PAGE.

>95% as determined by SEC-MALS.

**Formulation**

Lyophilized from 0.22 µm filtered solution in 50 mM Tris, 100 mM Glycine, pH7.5 with trehalose as protectant.

Contact us for customized product form or formulation.

**Reconstitution**

Please see Certificate of Analysis for specific instructions.

*For best performance, we strongly recommend you to follow the reconstitution protocol provided in the CoA.*

**Storage**

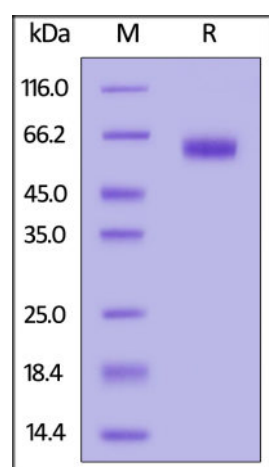
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

*Please avoid repeated freeze-thaw cycles.*

This product is stable after storage at:

- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

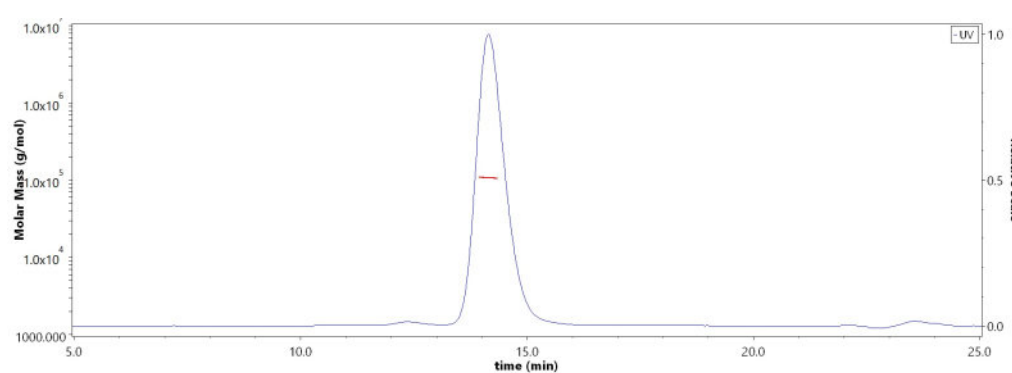
**SDS-PAGE**



Cynomolgus PD-1, Fc Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 90%.

**Bioactivity-ELISA**

**SEC-MALS**

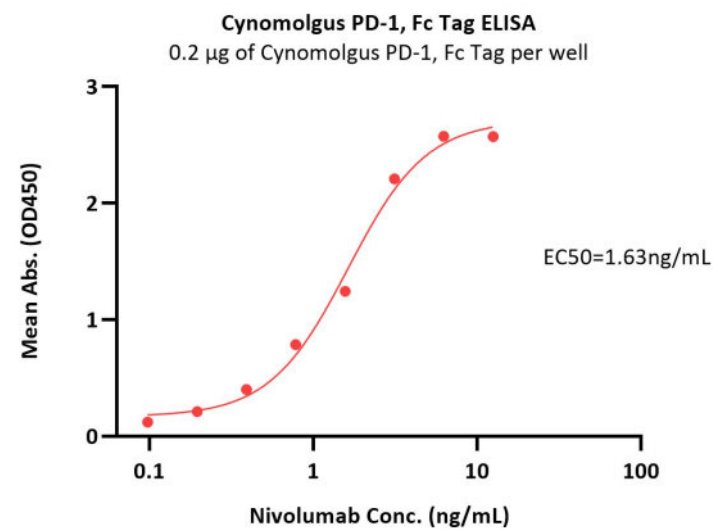
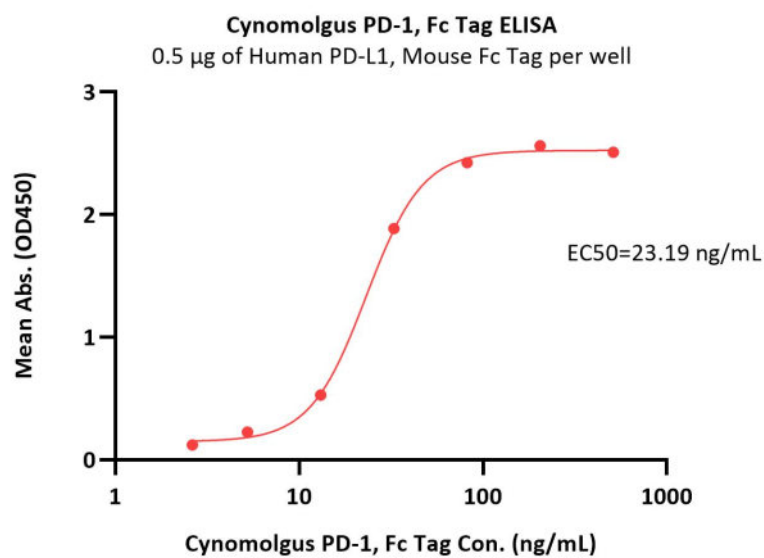


The purity of Cynomolgus PD-1, Fc Tag (Cat. No. PD1-C5254) is more than 95% and the molecular weight of this protein is around 96-118 kDa verified by SEC-MALS.

[Report](#)

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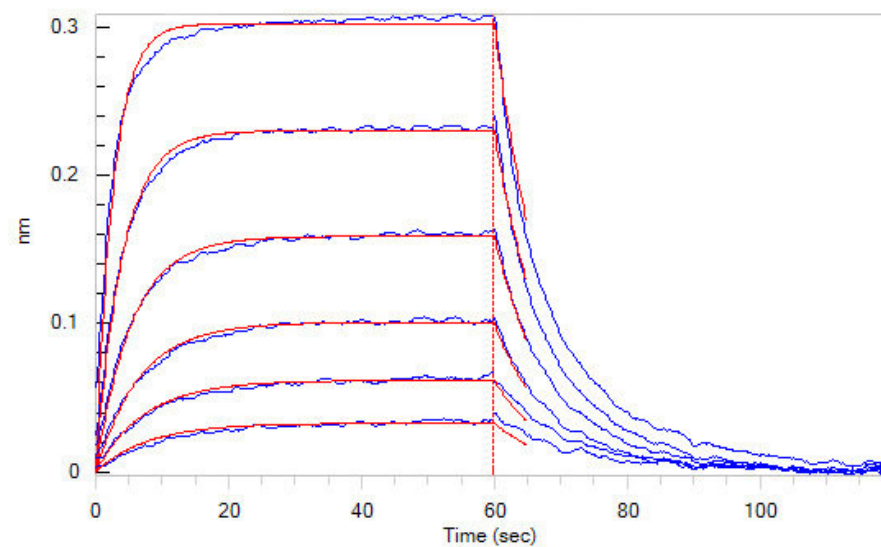
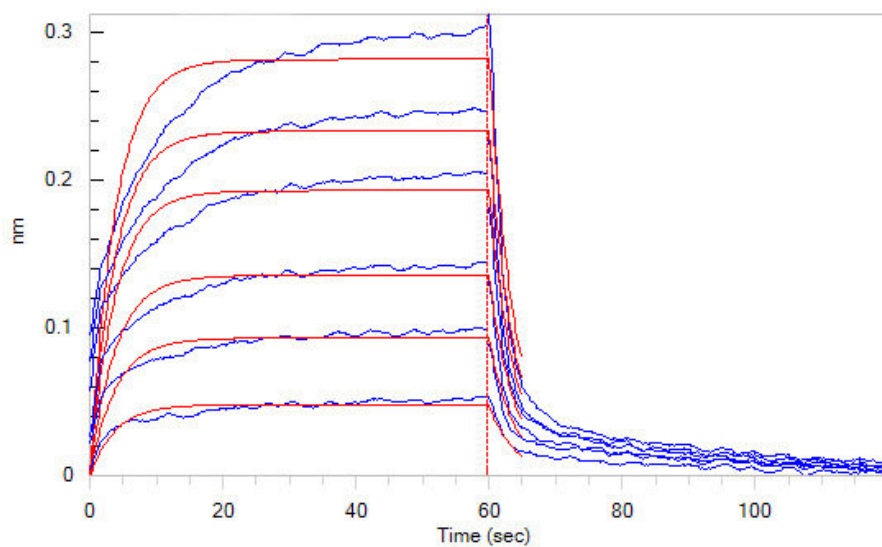




Immobilized Human PD-L1, Mouse IgG1 Fc Tag, low endotoxin (HPLC-verified) (Cat. No. PD1-H52A3) at 5 µg/mL (100 µL/well) can bind Cynomolgus PD-1, Fc Tag (Cat. No. PD1-C5254) with a linear range of 3-33 ng/mL (QC tested).

Immobilized Cynomolgus PD-1, Fc Tag (Cat. No. PD1-C5254) at 2 µg/mL (100 µL/well) can bind Nivolumab with a linear range of 0.1-3 ng/mL (Routinely tested).

**Bioactivity-BLI**



Loaded Cynomolgus PD-1, Fc Tag (Cat. No. PD1-C5254) on Protein A Biosensor, can bind Cynomolgus / Rhesus macaque PD-L1, His Tag (Cat. No. PD1-C52H4) with an affinity constant of 1.7 µM as determined in BLI assay (ForteBio Octet Red96e) (Routinely tested).

Loaded Cynomolgus PD-1, Fc Tag (Cat. No. PD1-C5254) on Protein A Biosensor, can bind Human PD-L2, His Tag (SPR verified) (Cat. No. PD2-H5220) with an affinity constant of 0.4 µM as determined in BLI assay (ForteBio Octet Red96e) (Routinely tested).

**Background**

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-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-γ secretion. Monoclonal antibodies targeting PD-1 that boost the immune system are being developed for the treatment of cancer.

**Clinical and Translational Updates**

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**Cynomolgus PD-1 / PDCD1 Protein, Fc Tag (MALS verified)**

Catalog # PD1-C5254



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