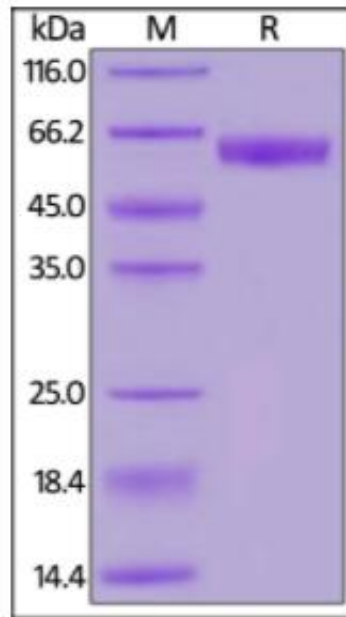


# Recombinant Human PDCD1 protein, C-Fc Tag

## Product Information

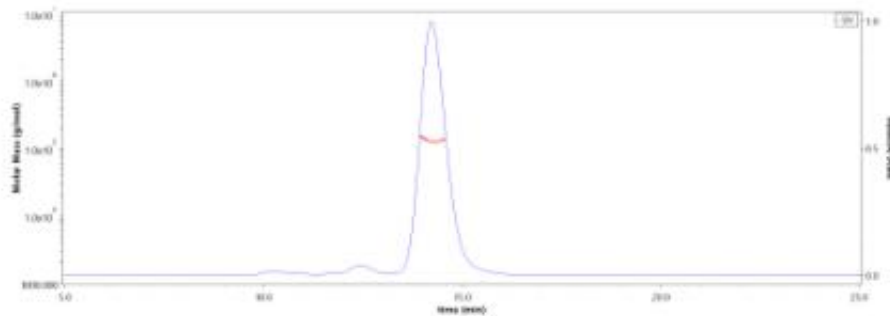
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|                          |  |
|--------------------------|--|
| <b>Cat</b>               | <i>IMP-052</i>   |
| <b>Official Symbol</b>   | <i>PDCD1</i>   |
| <b>Product Overview</b>  | <i>Recombinant Human PDCD1 protein(AA Leu 25-Gln 167)(Accession # NP_005009.2) is expressed from human 293 cells (HEK293). This protein carries a human IgG1 Fc tag at the C-terminus.</i>   |
| <b>Expression System</b> | <i>HEK293</i>  |
| <b>Species</b>           | <i>Human</i>   |
| <b>Tag</b>               | <i>C-Fc Tag</i>  |
| <b>Form</b>              | <i>Lyophilized from sterile PBS, pH7.4, 10% trehalose.</i>   |
| <b>Molecular Mass</b>    | <i>This protein carries a human IgG1 Fc tag at the C-terminus. The protein has a calculated MW of 42.1 kDa. The protein migrates as 56-66 kDa under reducing (R) condition (SDS-PAGE) due to glycosylation.</i>  |
| <b>Protein length</b>    | <i>Leu 25-Gln 167</i>  |
| <b>Endotoxin</b>         | <i>Less than 0.1 EU per ug by the LAL method.</i>  |
| <b>Purity</b>            | <i>&gt;95% as determined by SDS-PAGE.</i>  |
| <b>Storage</b>           | <i>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.</i> |
| <b>Reconstitution</b>    | <i>It is recommended that sterile water be added to the vial to prepare a stock solution of 0.2 mg/ml. Centrifuge the vial at 4°C before opening to recover the entire contents.</i>   |
| <b>SDS-PAGE</b>          |  |



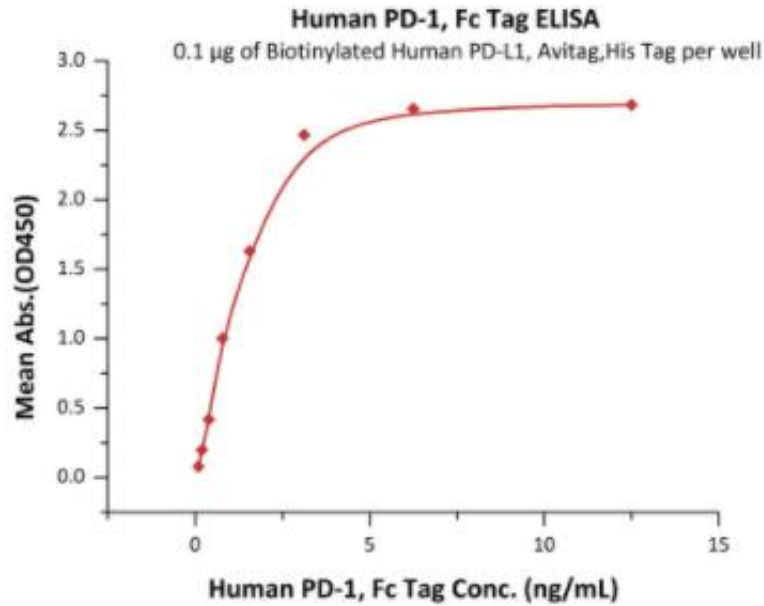
***Human PD-1, Fc Tag, low endotoxin on SDS-PAGE under reducing (R) condition. The gel was stained overnight with Coomassie Blue. The purity of the protein is greater than 95%.***

### **SEC-MALS 1**



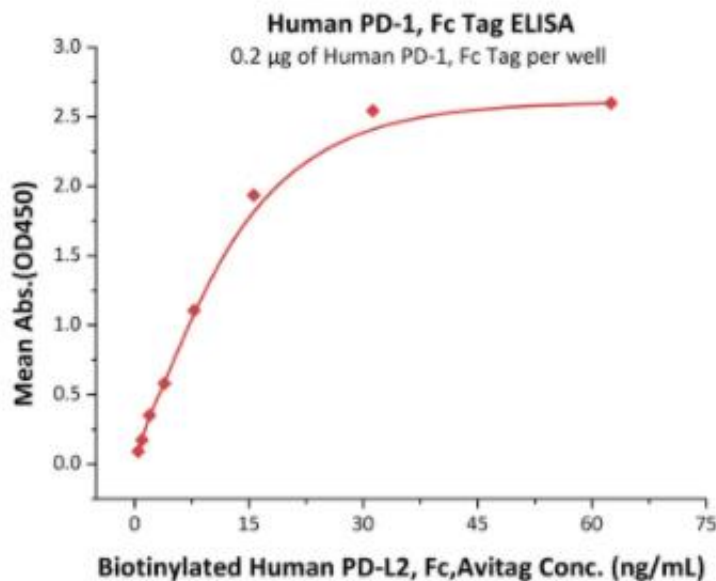
***The purity of Human PD-1, Fc Tag, low endotoxin was more than 90% and the molecular weight of this protein is around 130-150 kDa verified by SEC-MALS.***

**Bioactivity-ELISA 1**



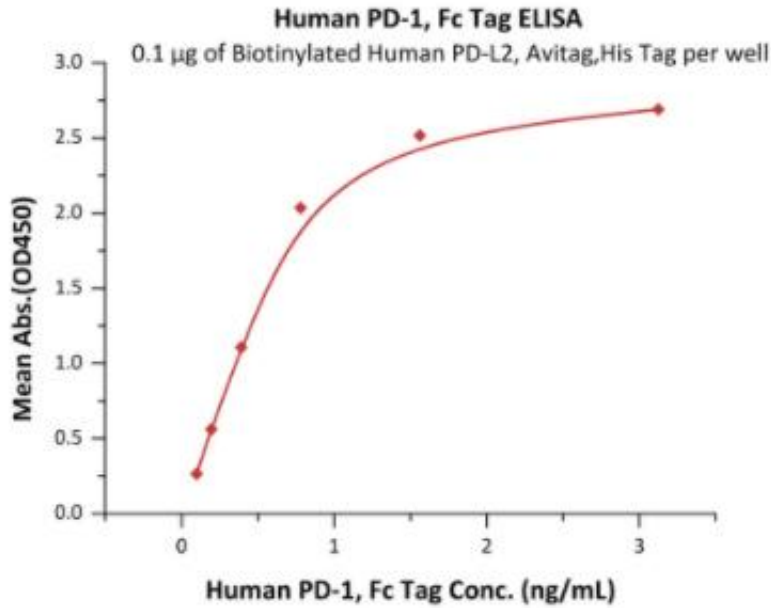
**Immobilized Biotinylated Human PD-L1, Avitag,His Tag (recommended for biopanning) at 1 ug/mL (100 uL/well) on streptavidin precoated (0.2 ug/well) plate, can bind Human PD-1, Fc Tag, low endotoxin with a linear range of 0.1-3 ng/mL.**

**Bioactivity-ELISA 2**



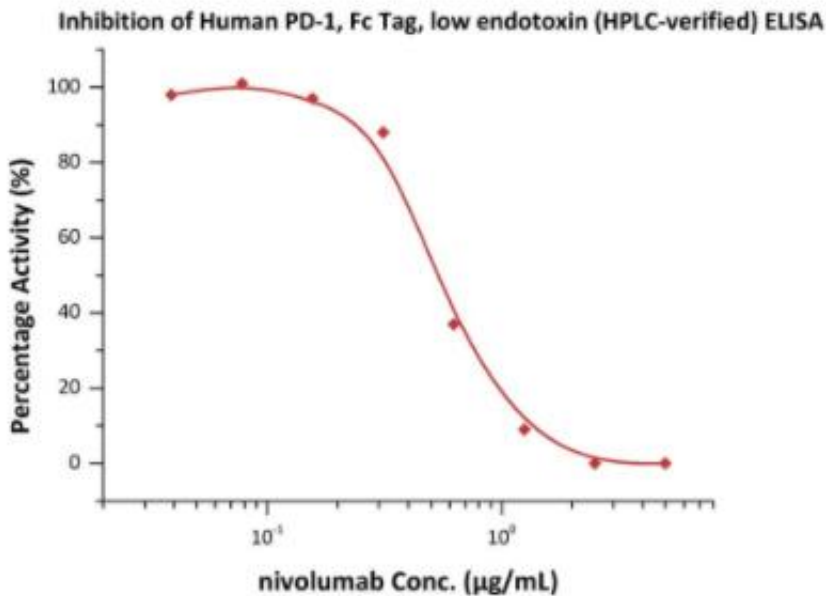
**Immobilized Human PD-1, Fc Tag, low endotoxin at 2 ug/mL (100 uL/well) can bind Biotinylated Human PD-L2, Fc,Avitag with a linear range of 0.5-16 ng/mL.**

**Bioactivity-ELISA 3**



**Immobilized Biotinylated Human PD-L2, Avitag, His Tag (recommended for biopanning) at 1 µg/mL (100 µL/well) on streptavidin precoated (0.2 µg/well) plate, can bind Human PD-1, Fc Tag, low endotoxin with a linear range of 0.1-1 ng/mL.**

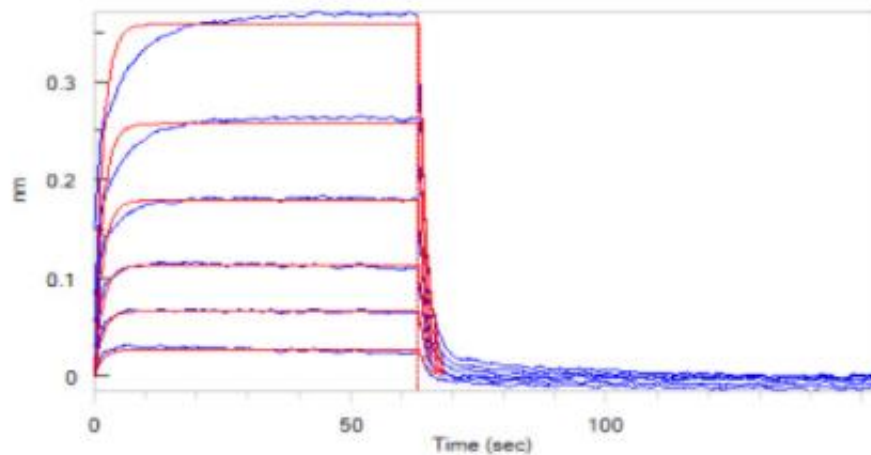
**Bioactivity-ELISA**



**Serial dilutions of nivolumab were added into Human PD-1, Fc Tag, low endotoxin:**

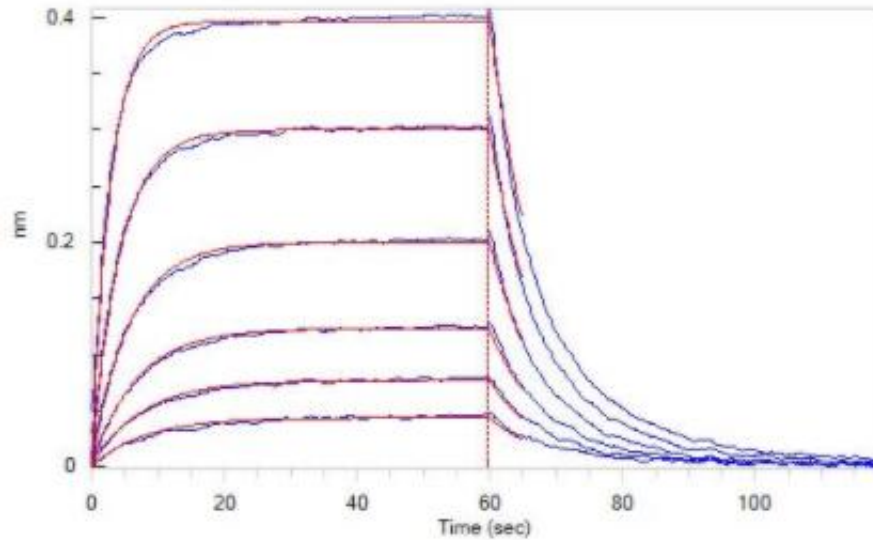
***Biotinylated Human PD-L1, Fc,Avitag,His Tag binding reactions. The half maximal inhibitory concentration (IC50) is 0.5381 ug/mL.***

### ***Bioactivity-BLI***



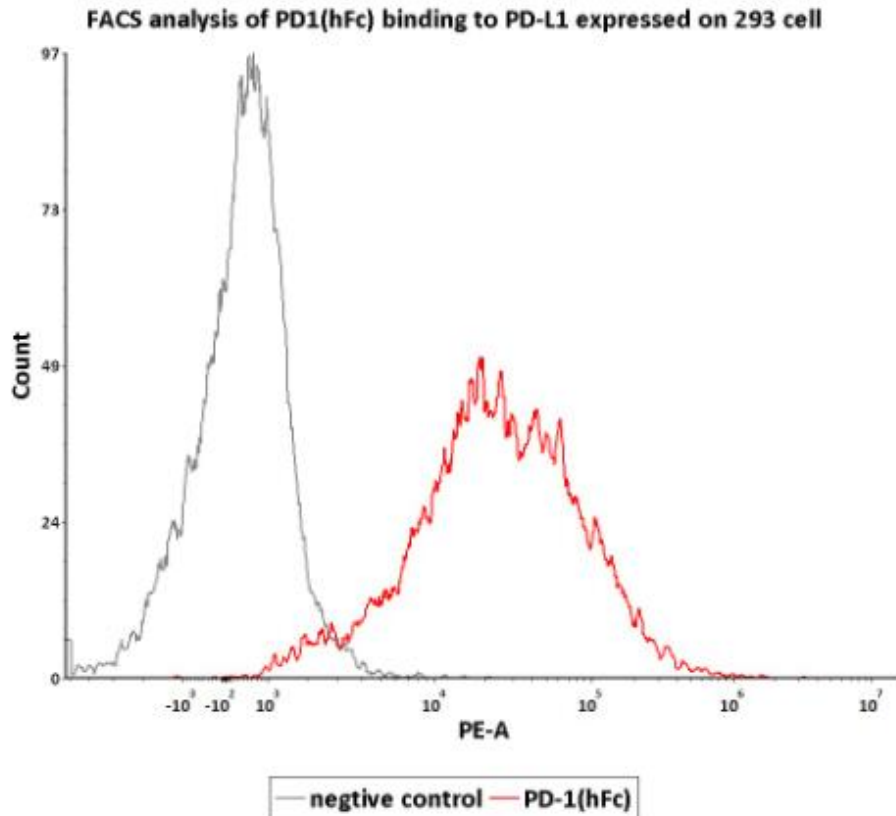
***Loaded Human PD-1, Fc Tag, low endotoxin on ProteinA Biosensor, can bind Human PD-L1, His Tag (HPLC & BLI verified) with an affinity constant of 5.3 uM as determined in BLI assay (ForteBio Octet Red96e).***

### ***Bioactivity-BLI 2***



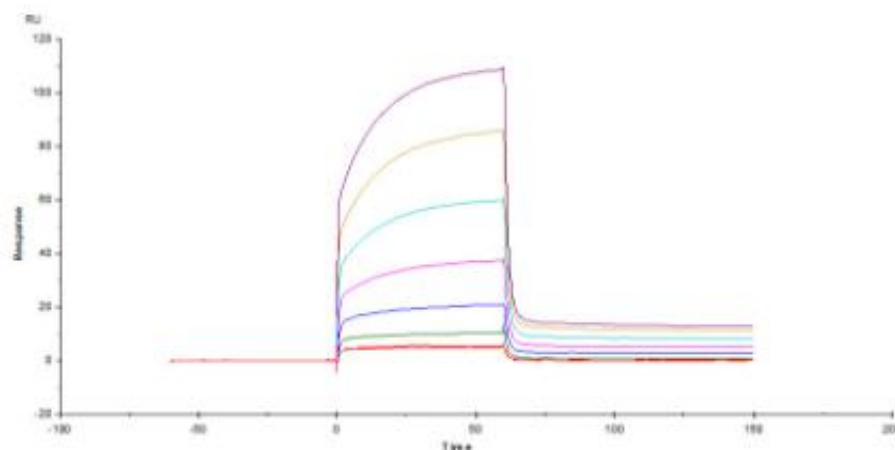
***Loaded Human PD-1, Fc Tag, low endotoxin on Protein A Biosensor, can bind Human PD-L2, His Tag (SPR verified) with an affinity constant of 0.45  $\mu$ M as determined in BLI assay (ForteBio Octet Red96e).***

### ***Bioactivity-FACS 1***



**Flow Cytometry assay shows that Human PD-1, Fc Tag, low endotoxin can bind to 293 cell overexpressing human PD-L1. The concentration of PD-1 used is 1 ug/mL.**

**Bioactivity-SPI**



**Human PD-1, Fc Tag, low endotoxin (HPLC-verified) captured on CM5 chip via anti-human IgG**

***Fc antibody, can bind Human PD-L1, His Tag (HPLC-verified) with an affinity constant of 3.6 uM as determined in a SPR assay (Biacore T200).***