Human PD-L2 / B7-DC Protein, Fc Tag (HPLC verified)

Catalog # PD2-H5251

Synonym

PDL2,PD-L2,Butyrophilin B7-DC,CD273,PDCD1 ligand 2,PDCD1L2,PDCD1LG2

Source

Human PD-L2 Protein, Fc Tag(PD2-H5251) is expressed from human 293 cells (HEK293). It contains AA Leu 20 - Pro 219 (Accession # AAI13679).
Predicted N-terminus: Leu 20

Molecular Characterization

PD-L2(Leu 20 - Pro 219) AAI13679	Fc(Pro 100 - Lys 330) P01857

This protein carries a human IgG1 Fc tag at the C-terminus.

The protein has a calculated MW of 49.2 kDa. The protein migrates as 60-70 kDa when calibrated against Star Ribbon Pre-stained Protein Marker under reducing (R) condition (SDS-PAGE) due to glycosylation.

Endotoxin

Less than 1.0 EU per μg by the LAL method.

Purity

>95% as determined by SDS-PAGE.

>90% as determined by SEC-HPLC.

Formulation

Lyophilized from 0.22 μm filtered solution in PBS, pH7.4 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

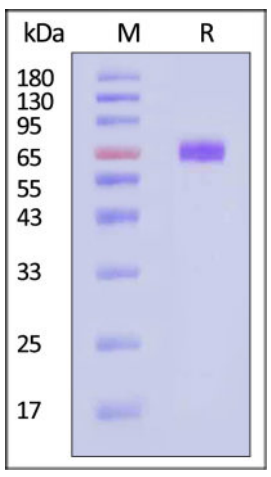
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

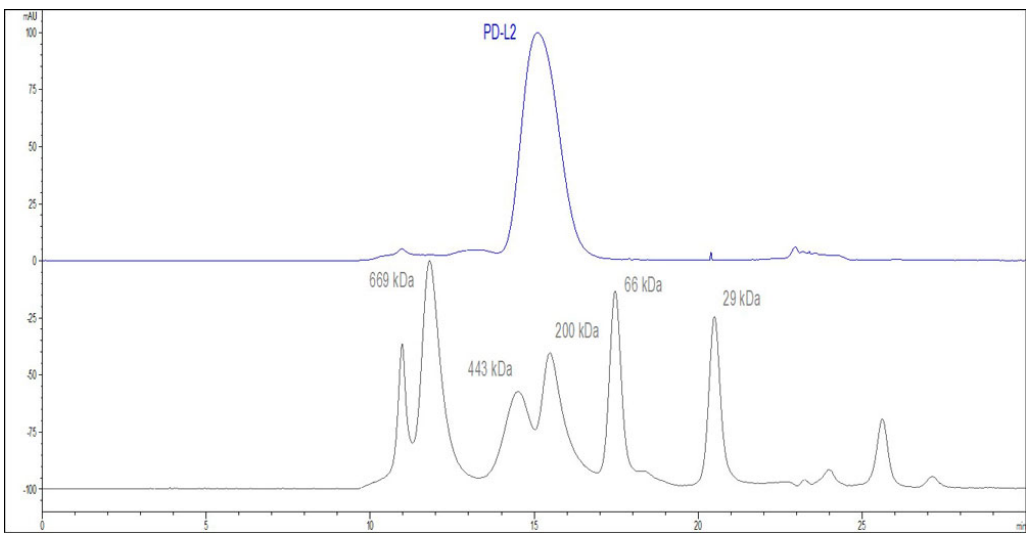
- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

SDS-PAGE



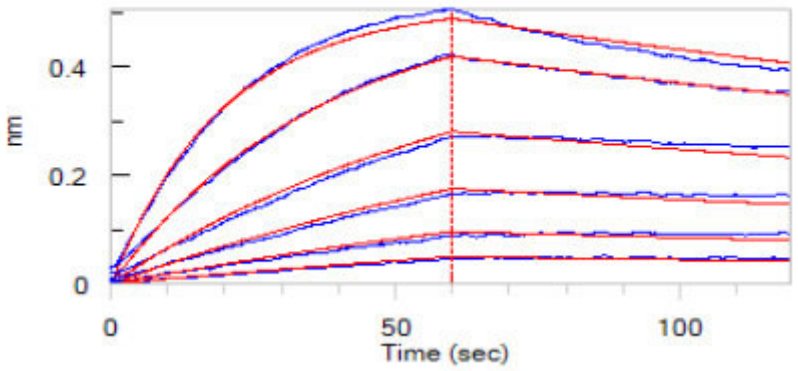
Human PD-L2 Protein, Fc Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95% (With Star Ribbon Pre-stained Protein Marker).

SEC-HPLC

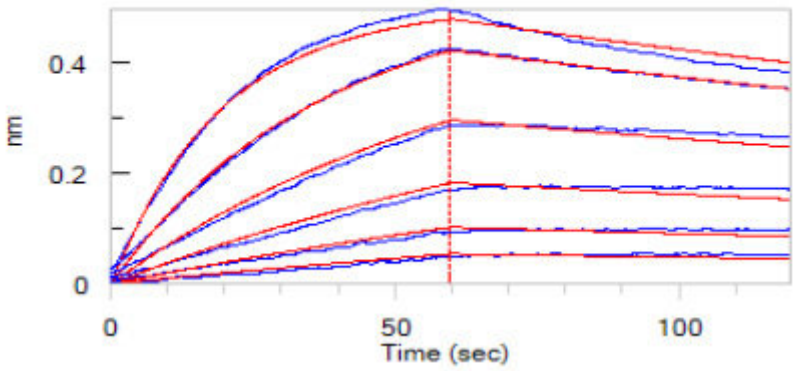


The purity of Human PD-L2 Protein, Fc Tag (Cat. No. PD2-H5251) was greater than 90% as determined by SEC-HPLC.

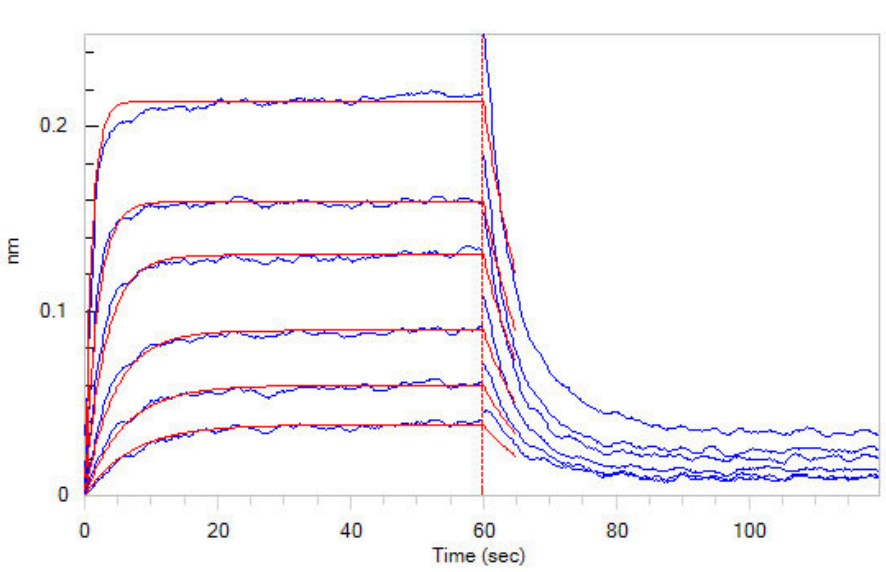
Bioactivity-BLI



Loaded Human PD-1, His Tag (Cat. No. PD1-H5221) on HIS1K Biosensor, can bind Human PD-L2 Protein, Fc Tag (Cat. No. PD2-H5251) with an affinity constant of 16.3 nM as determined in BLI assay (ForteBio Octet Red96e) (QC tested).

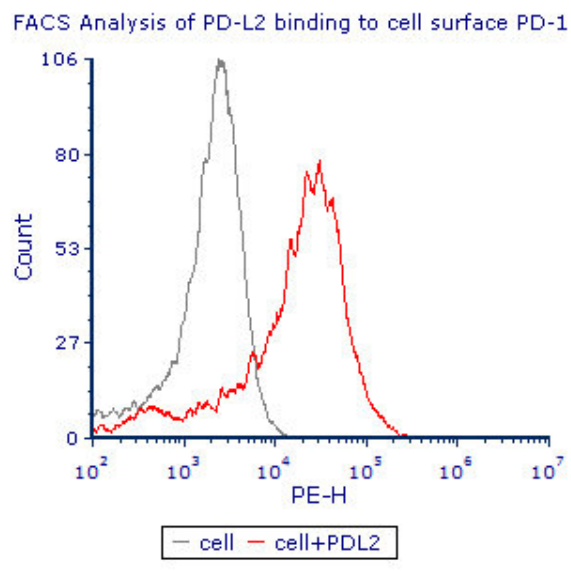


Loaded Human PD-1 Protein, His Tag (Cat. No. PD1-H522a) on HIS1K Biosensor, can bind Human PD-L2 Protein, Fc Tag (Cat. No. PD2-H5251) with an affinity constant of 15.7 nM as determined in BLI assay (ForteBio Octet Red96e) (Routinely tested).



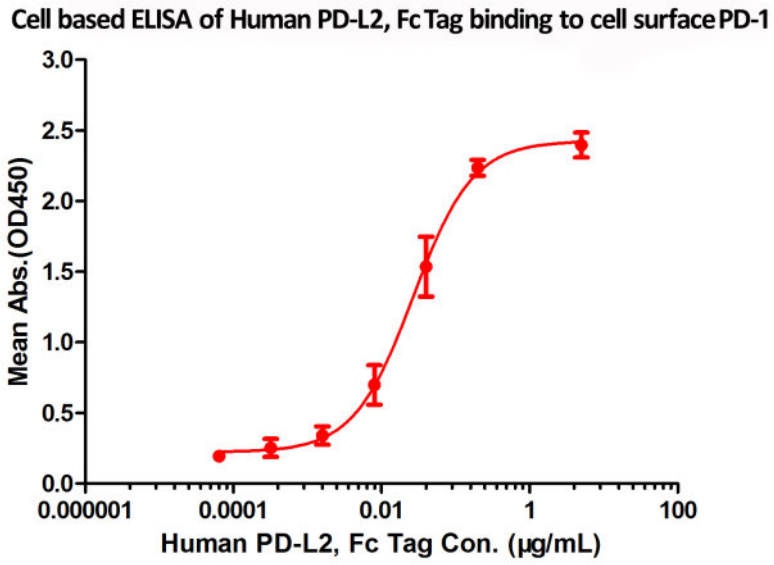
Loaded Human PD-L2 Protein, Fc Tag (Cat. No. PD2-H5251) on Protein A Biosensor, can bind Human PD-1 Protein, His Tag (Cat. No. PD1-H522a) with an affinity constant of 0.9 μM as determined in BLI assay (ForteBio Octet Red96e) (Routinely tested).

Bioactivity-FACS



Flow Cytometry assay shows that recombinant Human PD-L2 Protein, Fc Tag (Cat. No. PD2-H5251) can bind to 293 cell overexpressing human PD-1. The concentration of PD-L2 used is 1 μg/mL (Routinely tested).

Bioactivity-Bioactivity CELL BASE



Immobilized cell surface PD-1 (5x104 of cells per well) can bind Human PD-L2 Protein, Fc Tag (Cat. No. PD2-H5251) with an EC50 of 0.018 μg/mL (Routinely tested).

Background

Programmed cell death 1 ligand 2 (PD-L2 or PDCD1 ligand 2) is also known as Butyrophilin B7-DC, CD antigen CD273, which belongs to the immunoglobulin superfamily or BTN/MOG family. The expression of PD-L2 is up-regulated by IFNG/IFN-gamma stimulation in monocytes and induced on dendritic cells grown from peripheral blood mononuclear cells with CSF2 and IL-4. PD-L2 Involved in the costimulatory signal, essential for T-cell proliferation and IFNG production in a PDCD1-independent manner. PD-L2 interaction with PDCD1 inhibits T-cell proliferation by blocking cell cycle progression and cytokine production.

Clinical and Translational Updates