Biotinylated Human PD-L1 / B7-H1 Protein, Fc,Avitag™,His Tag (MALS verified)

Catalog # PD1-H82F3

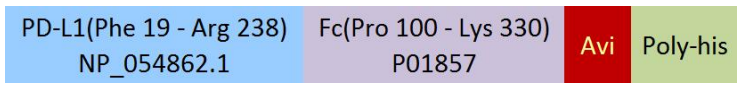
Synonym

PD-L1,CD274,B7-H1,PDCD1L1,PDCD1LG1

Source

Biotinylated Human PD-L1, Fc,Avitag,His Tag(PD1-H82F3) is expressed from human 293 cells (HEK293). It contains AA Phe 19 - Arg 238 (Accession # NP_054862.1).
Predicted N-terminus: Phe 19

Molecular Characterization



This protein carries a human IgG1 Fc fragment at the C-terminus, followed by a polyhistidine tag. The Avi tag (Avitag™) is inserted in-between the Fc and his tags. The protein has a calculated MW of 54.0 kDa. The protein migrates as 65-80 kDa on a SDS-PAGE gel when calibrated against Star Ribbon Pre-stained Protein Marker under reducing (R) condition due to glycosylation.

Labeling

Biotinylation of this product is performed using Avitag™ technology. Briefly, the single lysine residue in the Avitag is enzymatically labeled with biotin.

Protein Ratio

Passed as determined by the HABA assay / binding ELISA.

Endotoxin

Less than 1.0 EU per μg by the LAL method.

Purity

>95% as determined by SDS-PAGE.

>90% as determined by SEC-MALS.

Formulation

Lyophilized from 0.22 μm filtered solution in
Tris with Glycine, Arginine and NaCl, 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

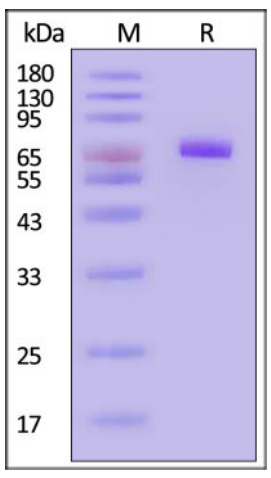
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

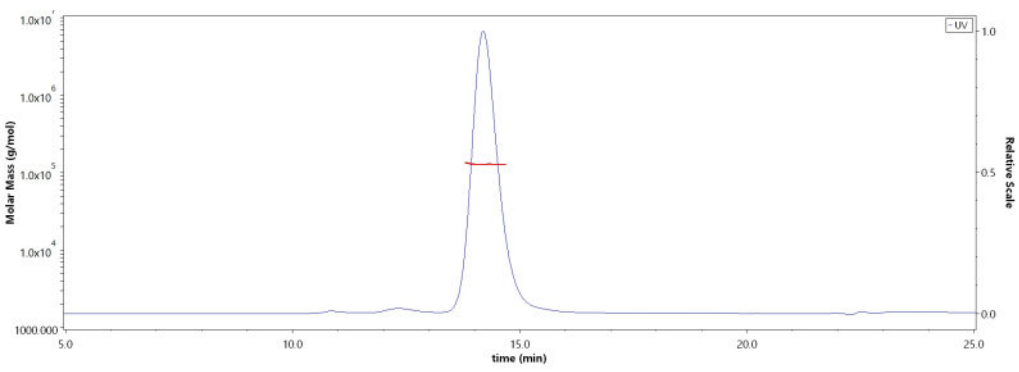
- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

SDS-PAGE



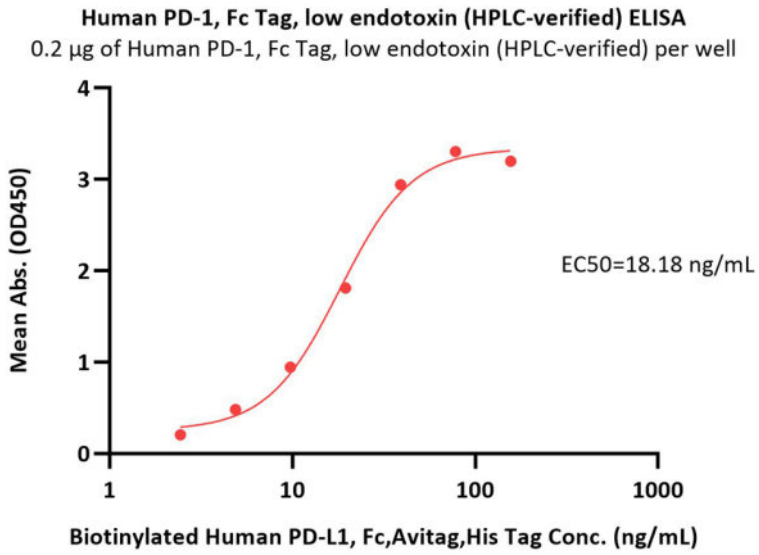
Biotinylated Human PD-L1, Fc,Avitag,His Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95% (With Star Ribbon Pre-stained Protein Marker).

SEC-MALS

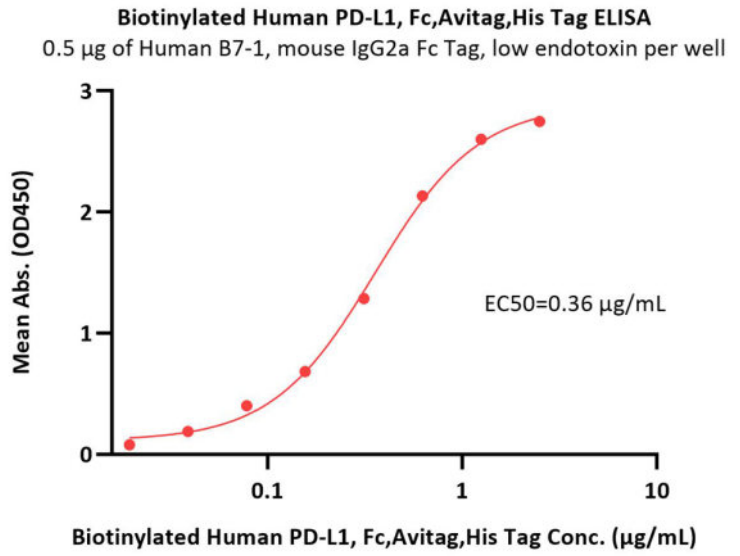


The purity of Biotinylated Human PD-L1, Fc,Avitag,His Tag (Cat. No. PD1-H82F3) is more than 90% and the molecular weight of this protein is around 120-135 kDa verified by SEC-MALS.
Report

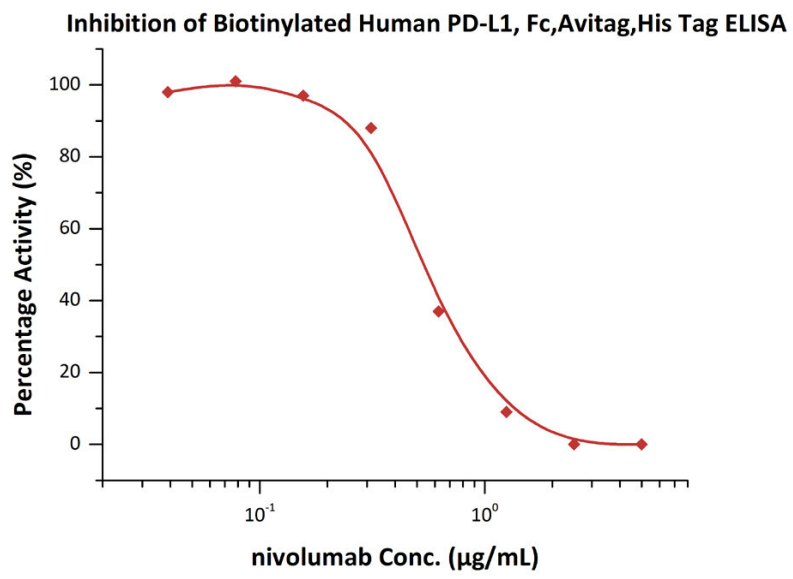
Bioactivity-ELISA



Immobilized Human PD-1, Fc Tag, low endotoxin (HPLC-verified) (Cat. No. PD1-H5257) at 2 μg/mL (100 μL/well) can bind Biotinylated Human PD-L1, Fc,Avitag,His Tag (Cat. No. PD1-H82F3) with a linear range of 2-39 ng/mL (QC tested).

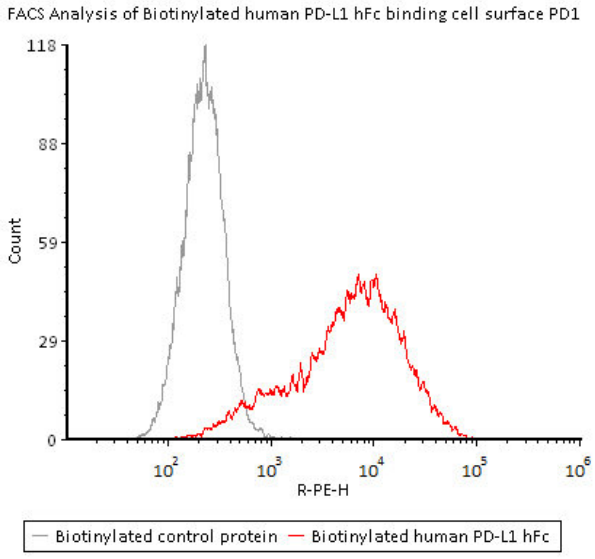


Immobilized Human B7-1, mouse IgG2a Fc Tag, low endotoxin (Cat. No. B71-H52A4) at 5 μg/mL (100 μL/well) can bind Biotinylated Human PD-L1, Fc,Avitag,His Tag (Cat. No. PD1-H82F3) with a linear range of 0.02-0.625 μg/mL (Routinely tested).

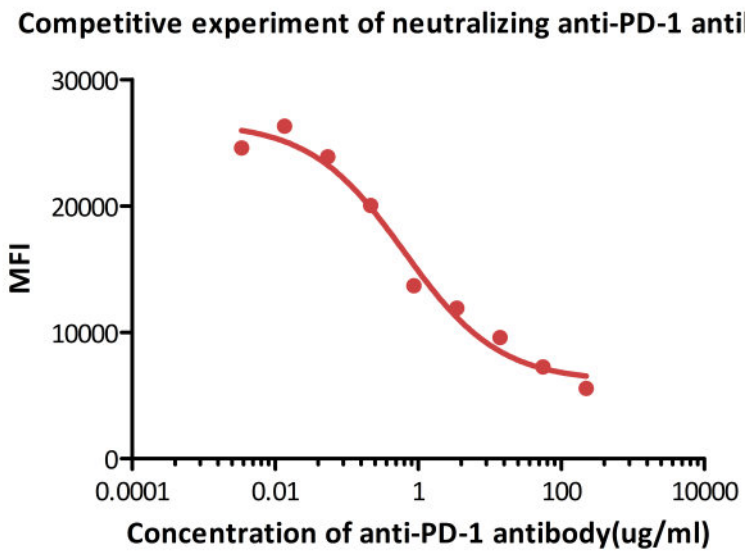


Serial dilutions of nivolumab were added into Human PD-1, Fc Tag, low endotoxin (HPLC-verified) (Cat. No. PD1-H5257): Biotinylated Human PD-L1, Fc,Avitag,His Tag (Cat. No. PD1-H82F3) binding reactions. The half maximal inhibitory concentration (IC50) is 0.5381 μg/mL (Routinely tested).

Bioactivity-FACS



Flow Cytometry assay shows that Biotinylated Human PD-L1, Fc,Avitag,His Tag (Cat.No. PD1-H82F3) can bind to 293 cell

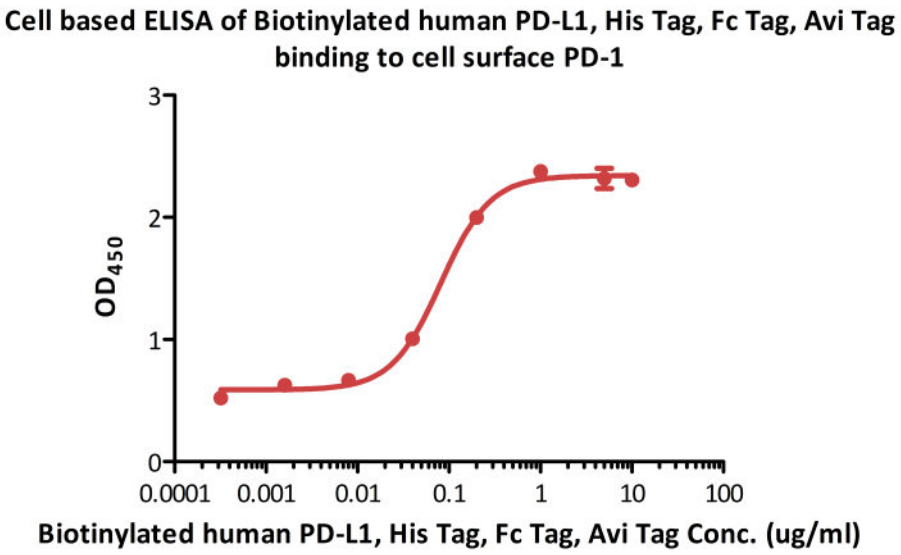


FACS analysis shows that the binding of Biotinylated Human PD-L1, Fc,Avitag,His Tag (Cat. No. PD1-H82F3) to 293 overexpressing PD-1 was

overexpressing human PD-1. The concentration of PD-L1 used is 1 μg/mL (Routinely tested).

inhibited by increasing concentration of neutralizing anti-PD-1 antibody. The concentration of PD-L1 used is 2 μg/mL. The IC50 is 0.64 μg/mL (Routinely tested).

Bioactivity-Bioactivity CELL BASE



Immobilized cell surface PD-1 (5x104 of cells per well) can bind Biotinylated Human PD-L1, Fc,Avitag,His Tag (Cat. No. PD1-H82F3) with an EC50 of 0.082 μg/mL (Routinely tested).

Background

Programmed cell death 1 ligand 1 (PDL1) is also known as B7-H, B7H1, MGC142294, MGC142296, PD-L1, PDCD1L1 and PDCD1LG1,which is a member of the growing B7 family of immune molecules and is involved in the regulation of cellular and humoral immune responses.PDL1 is a cell surface immunoglobulin superfamily with two Ig-like domains within the extracellular region and a short cytoplasmic domain. This protein is broadly expressed in the majority of peripheral tissues as well as hematopoietic cells. Interaction between PDL1 and its receptors belonging to the CD28 family of molecules provide both stimulatory and inhibitory signals in regulating T cell activation and tolerance. PDL1 may inhibit ongoing T-cell responses by inducing apoptosis and arresting cell-cycle progression.

Clinical and Translational Updates

Please contact us via TechSupport@acrobiosystems.com if you have any question on this product.