Human PD-L1 / B7-H1 Protein, Mouse IgG1 Fc Tag, low endotoxin (MALS verified)

Catalog # PD1-H52A3

Synonym

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

Source

Human PD-L1 Protein, Mouse IgG1 Fc Tag(PD1-H52A3) 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

PD-L1(Phe 19 - Arg 238) NP_054862.1	mFc(Val 98 - Lys 324) AAK53870.1

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

The protein has a calculated MW of 51.4 kDa. The protein migrates as 55-65 kDa under reducing (R) condition (SDS-PAGE) due to glycosylation.

Endotoxin

Less than 0.1 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 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

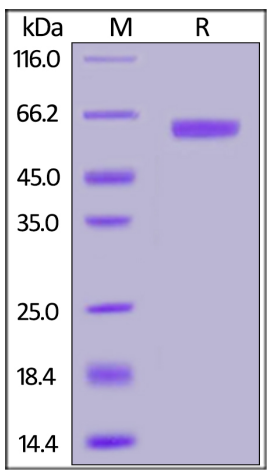
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

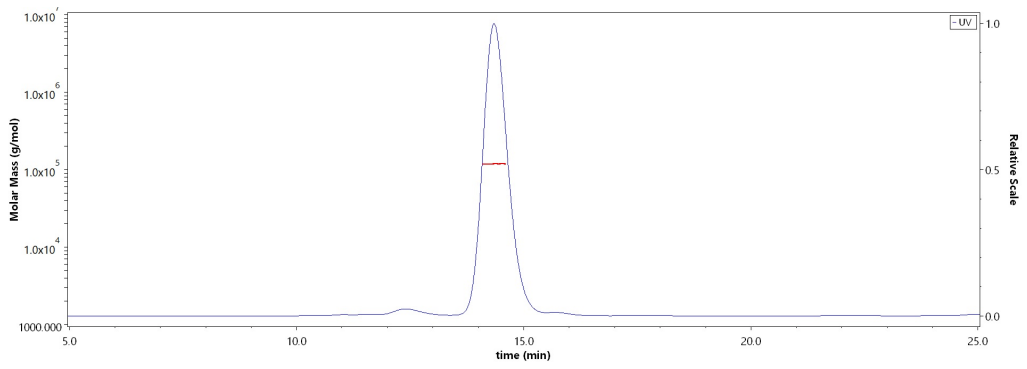
- -20°C to -70°C for 24 months in lyophilized state;
- -70°C for 12 months under sterile conditions after reconstitution.

SDS-PAGE



Human PD-L1 Protein, Mouse IgG1 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%.

SEC-MALS

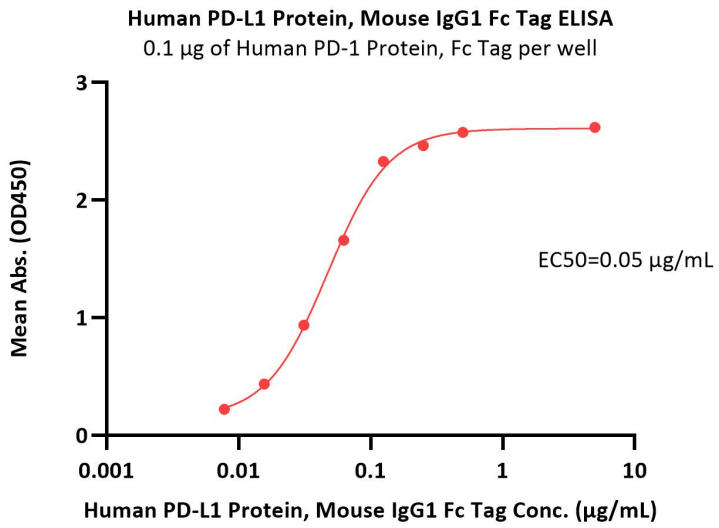


The purity of Human PD-L1 Protein, Mouse IgG1 Fc Tag (Cat. No. PD1-H52A3) is more than 90% and the molecular weight of this protein is around 115-135 kDa verified by SEC-MALS.
Report

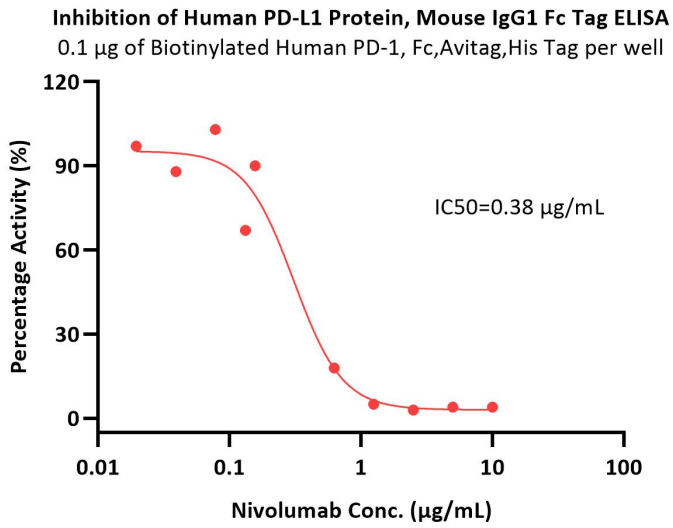
Bioactivity-ELISA

Human PD-L1 / B7-H1 Protein, Mouse IgG1 Fc Tag, low endotoxin (MALS verified)

Catalog # PD1-H52A3

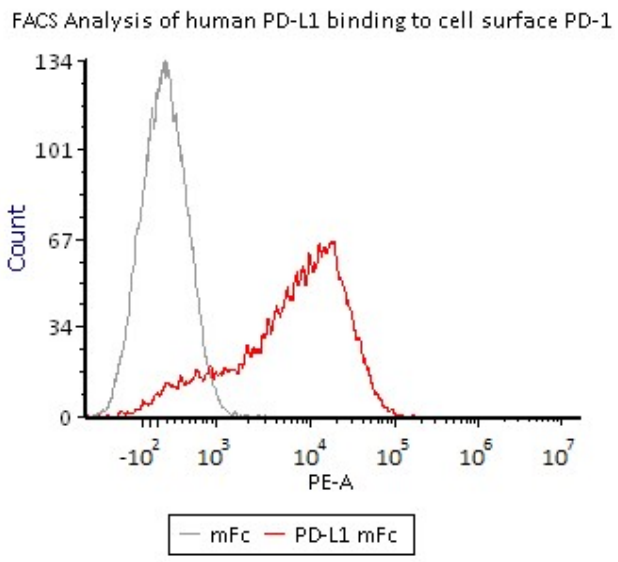


Immobilized Human PD-1 Protein, Fc Tag (Cat. No. PD1-H5257) at 1 μg/mL (100 μL/well) can bind Human PD-L1 Protein, Mouse IgG1 Fc Tag (Cat. No. PD1-H52A3) with a linear range of 0.008-0.25 μg/mL (QC tested).



Serial dilutions of Nivolumab were added into Human PD-L1 Protein, Mouse IgG1 Fc Tag (Cat. No. PD1-H52A3): Biotinylated Human PD-1, Fc,Avitag,His Tag (Cat. No. PD1-H82F2) binding reactions. The half maximal inhibitory concentration (IC50) is 0.38426 μg/mL (QC tested).

Bioactivity-FACS



2e5 of C4B-293T cells overexpressing PD-1 were stained with 100 μL of 10 μg/mL of Human PD-L1 Protein, Mouse IgG1 Fc Tag (Cat. No.PD1-H52A3) and Negative Control Protein respectively, washed and then followed by PE-anti Mouse IgG1 Antibody and analyzed with FACS (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