Datasheet

Biotinylated Human PD-L1 / B7-H1, His Tag & Fc Tag, Avi Tag (Avitag™)

Catalog # AMS.PD1-H82F3

For Research Use Only

Description

Source MABSol® Biotinylated Human PD-L1 / B7-H1, His Tag & Fc Tag (AMS.PD1-H82F3) is expressed from human HEK293 cells. It contains AA Phe 19 - Arg 238 (Accession # NP_054862.1).

Predicted N-terminus Phe 19

Protein Structure

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 53.2 kDa. The protein migrates as 60-75 kDa on a SDS-PAGE gel under reducing (R) condition due to glycosylation.

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

Biotin:Protein Ratio The biotin to protein ratio is 0.5-1 as determined by the HABA assay.

Endotoxin Less than 1.0 EU per μg by the LAL method.

Purity >95% as determined by SDS-PAGE.

Bioactivity Measured by its binding ability in a functional ELISA against immobilized Human PD-1, Fc Tag (AMS. PD1-H5257, 0.2 μg/well). The linear range is 0.01-0.25 μg/mL.

Formulation and Storage

Formulation Lyophilized from 0.22 μm filtered solution in PBS, pH7.4. Normally Trehalose is added as protectant before lyophilization.

Contact us for customized product form or formulation.

Reconstitution Reconstitute at 200 μg/mL in sterile deionized water. 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.

No activity loss was observed after storage at:

- 4-8℃ for 12 months in lyophilized state;
- -70℃ for 3 months under sterile conditions after reconstitution.

Background

Background Programmed cell death 1 ligand 1 (PD-L1) is also known as cluster of differentiation (CD274) or B7 homolog 1 (B7-H1), is a member of the growing B7 family of immune molecules and is involved in the regulation of cellular and humoral immune responses. B7-H1 is a cell surface immunoglobulin superfamily with two Ig-like domains within the extracellular region and a short cytoplasmic domain. PD-L1 is highly expressed in the heart, skeletal muscle, placenta and lung and weakly expressed in the thymus, spleen, kidney and liver. PD-L1 is expressed on activated T-cells, B-cells, dendritic cells, keratinocytes and monocytes. PD-L1 is up-regulated on T- and B-cells, dendritic cells, keratinocytes and monocytes after LPS and IFNG activation and up-regulated in B-cells activated by surface Ig cross-linking. PD-L1 involve in the costimulatory signal, essential for T-cell proliferation and production of IL10 and IFNG, in an IL2-dependent and a PDCD1-independent manner.

References

(1) Dong H., et al., 1999, Nat. Med. 5:1365-1369.
(2) Freeman G.J., et al., 2000, J. Exp. Med. 192:1027-1034.
(3) Nishimura H., et al., 2001, Trends in Immunology 22:265.

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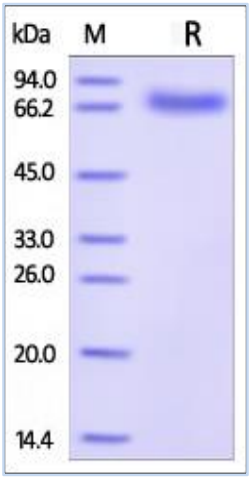
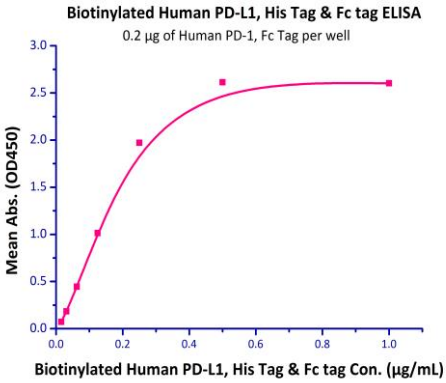
Assay Data

SDS-PAGE Data



Biotinylated Human PD-L1, His Tag & Fc tag on SDS-PAGE under reducing (R) condition. The gel was stained overnight with Coomassie Blue. The purity of the protein is greater than 95%.

Bioactivity Data



Immobilized Human PD-1, Fc Tag (Catalog # AMS.PD1-H5257) at 2 μg/mL (100μL/well) can bind Biotinylated Human PD-L1, His Tag & Fc tag (Catalog # AMS.PD1-H82F3) with a linear range of 0.01-

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