

Anti-Human PD-L1 Antibody [PSH15-37] - BSA and Azide free (Detector)

HA723741



Product Type:	Recombinant Rabbit monoclonal IgG, primary antibodies
Species reactivity:	Human
Applications:	ELISA(Det)
Clone number:	PSH15-37

Description:	PD-L1 (programmed-death ligand 1; CD274), is a transmembrane protein constitutionally expressed on a variety of cell types, including antigen presenting cells (dendritic cells and histiocytes) and some non-lymphoid tissues (heart and lung). Binding of PD-L1 to PD-1 (programmed-death 1; CD279) expressed by activated T-cells, inhibits their function, causing negative feedback control of immunological reactions, thus impeding inflammation and autoimmunity. Tumour cells may express PD-L1, which binds to PD-1 allowing cancer cells to evade the attack of T-cells. Blockade of the PD-1/PD-L1 pathway has now shown useful in therapy of multiple cancer types, causing durable tumour regressions in a substantial proportion of otherwise treatment refractory cases of melanoma, and carcinomas of e.g., lung, kidney, and urinary tract. Patients without tumour PD-L1 expression can also derive benefit from blocking agents (studies across multiple cancer types demonstrate a pooled response rate of 48% in patients with PD-L1-positive tumours compared to 15% in PD-L1-negative tumours). Tonsil and placenta can be used as positive and negative tissue controls. However, tonsil is found to be superior to placenta, as tonsil displays a range of PD-L1 expression levels. Tonsil displays the following reaction pattern: No staining reaction in the vast majority of lymphocytes including mantle zone and germinal centre B-cells, no staining reaction in superficial epithelial cells, a weak to moderate, typically punctuated membranous staining reaction of the majority of germinal centre macrophages and finally a moderate to strong staining reaction of the majority of epithelial crypt cells.
Immunogen:	Recombinant protein within Human PD-L1 aa 19-238 (HA210954).
Positive control:	Recombinant Human PD-L1 protein (HA210954).
Subcellular location:	Cell membrane, Early endosome membrane, Recycling endosome membrane, Nucleus.
Database links:	SwissProt: Q9NZQ7 Human
Recommended Dilutions:	
ELISA(Det)	Use at an assay dependent concentration. Can be paired for Sandwich ELISA with Rabbit monoclonal [PSH15-36] to Human PD-L1R antibody (Capture) (HA723740) and Recombinant Human PD-L1 protein (HA210954) as the standard. The reference range value is 7.8-2,000 pg/mL.
Storage Buffer:	PBS (pH7.4).
Storage Instruction:	Store at +4℃ after thawing. Aliquot store at -20℃. Avoid repeated freeze / thaw cycles.
Purity:	Protein A affinity purified.

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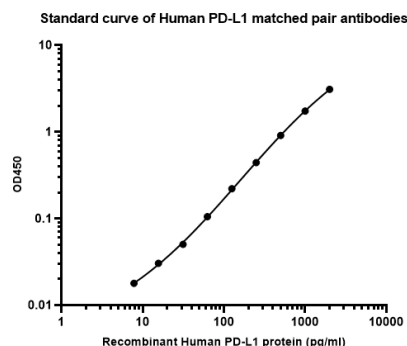
Applications:WB=Western blot IHC-P=Immunohistochemistry (paraffin) IF-Cell=Immunofluorescence (Cell) IF-Tissue=Immunofluorescence (Tissue) FC=Flow cytometry IP=Immunoprecipitation

Images

Fig1: Sandwich ELISA analysis of Human PD-L1 matched pair antibodies

Capture: HA723740, Human PD-L1 Rabbit mAb [PSH15-36]

Detector: HA723741, Human PD-L1 Rabbit mAb [PSH15-37]

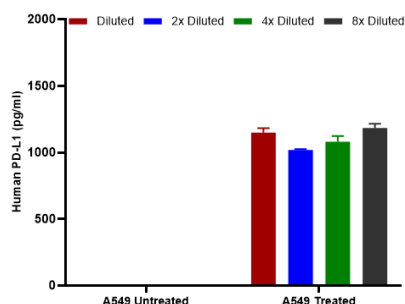


Elisa assay was performed by coating wells of a 96-well plate with 100 μ l per well of capture antibody (HA723740) diluted in carbonate/bicarbonate buffer, at a concentration of 5 μ g/mL overnight at 4°C. Wells of the plate were washed, blocked with 150 μ l 0.05% tween-20 1% BSA blocking buffer, and incubated with serial diluted Recombinant Human PD-L1 protein (HA210954) starting from 2,000 pg/ml to 0 pg/ml and detect antibody (HA723741, Biotin, 0.2 μ g/ml) for 1 hour at 30°C with shaking. Then the plate was washed and incubated with 100 μ l per well of SA-HRP for 0.5 hour at 30°C with shaking. Detection was performed using an Ultra TMB Substrate for 10 minutes at room temperature in the dark. The reaction was stopped with sulfuric acid and absorbances were read on a spectrophotometer at 450 nm.

Fig2: Interpolated concentrations of native PD-L1 in A549 Cell extract samples based on a 1000 μ g/ml extract load.

Capture: HA723740, Human PD-L1 Rabbit mAb [PSH15-36]

Detector: HA723741, Human PD-L1 Rabbit mAb [PSH15-37]

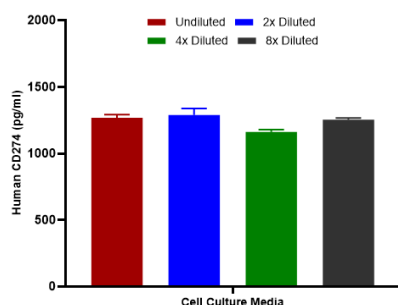


Interpolated concentration of native PD-L1 was measured in duplicate at different sample concentrations. The interpolated dilution factor corrected values were plotted (mean $\pm$ SD, n=2). The mean PD-L1 concentration was determined to be 1108 pg/mL in A549 treated Cell extract and undetectable in A549 untreated Cell extract.

Fig3: Interpolated concentrations of spiked PD-L1 in cell culture media samples.

Capture: HA723740, Human PD-L1 Rabbit mAb [PSH15-36]

Detector: HA723741, Human PD-L1 Rabbit mAb [PSH15-37]



The concentrations of PD-L1 were measured in duplicates, interpolated from the PD-L1 standard curves and corrected for sample dilution. Undiluted samples are as follows: cell culture media 50%. The interpolated dilution factor corrected values are plotted (mean $\pm$ SD, n=2).

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Note: All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE".

Background References

1. Yi M et al. Regulation of PD-L1 expression in the tumor microenvironment. J Hematol Oncol. 2021 Jan
2. Gou Q et al. PD-L1 degradation pathway and immunotherapy for cancer. Cell Death Dis. 2020 Nov

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