Anti-PD-L1 Antibody [PSH04-80] - BSA and Azide free

HA750974

Product Type:	Recombinant Rabbit monoclonal IgG, primary antibodies
Species reactivity:	Mouse
Applications:	WB, IHC-P
Molecular Wt:	Predicted band size: 33 kDa
Clone number:	PSH04-80

Description: Programmed death-ligand 1 (PD-L1) also known as cluster of differentiation 274 (CD274) or B7 homolog 1 (B7-H1) is a protein that in humans is encoded by the CD274 gene. Programmed death-ligand 1 (PD-L1) is a 40kDa type 1 transmembrane protein that has been speculated to play a major role in suppressing the adaptive arm of immune systems during particular events such as pregnancy, tissue allografts, autoimmune disease and other disease states such as hepatitis. Normally the adaptive immune system reacts to antigens that are associated with immune system activation by exogenous or endogenous danger signals. In turn, clonal expansion of antigen-specific CD8+ T cells and/or CD4+ helper cells is propagated. The binding of PD-L1 to the inhibitory checkpoint molecule PD-1 transmits an inhibitory signal based on interaction with phosphatases (SHP-1 or SHP-2) via Immunoreceptor Tyrosine-Based Switch Motif (ITSM). This reduces the proliferation of antigen-specific T-cells in lymph nodes, while simultaneously reducing apoptosis in regulatory T cells (anti-inflammatory, suppressive T cells) – further mediated by a lower regulation of the gene Bcl-2.

Immunogen: Recombinant protein within mouse PD-L1 aa 1-250 / 290.

Positive control: RAW264.7 treated with 10μg/mL LPS for 8 hours cell lysate, J774A.1 treated with 1μg/mL LPS for 24 hours cell lysate, mouse spleen tissue lysate, mouse thymus tissue, mouse lung tissue.

Subcellular location: Cell membrane, Early endosome membrane, Recycling endosome membrane.

Database links: SwissProt: Q9EP73 Mouse

Recommended Dilutions:

WB	1:2,000
IHC-P	1:200

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.

Images

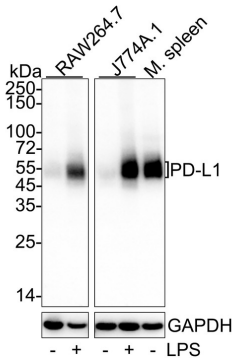

Fig1: Western blot analysis of PD-L1 on different lysates with Rabbit anti-PD-L1 antibody (HA750974) at 1/2,000 dilution.

Lane 1: RAW264.7 cell lysate
Lane 2: RAW264.7 treated with 10μg/mL LPS for 8 hours cell lysate
Lane 3: J774A.1 cell lysate
Lane 4: J774A.1 treated with 1μg/mL LPS for 24 hours cell lysate
Lane 5: Mouse spleen tissue lysate

Lysates/proteins at 30 μg/Lane.

Predicted band size: 33 kDa
Observed band size: 45-60 kDa

Exposure time: 46 seconds; ECL: K1802;

4-20% SDS-PAGE gel.

Proteins were transferred to a PVDF membrane and blocked with 5% NFDM/TBST for 1 hour at room temperature. The primary antibody (HA750974) at 1/2,000 dilution was used in 5% NFDM/TBST at 4℃ overnight. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1/50,000 dilution was used for 1 hour at room temperature.

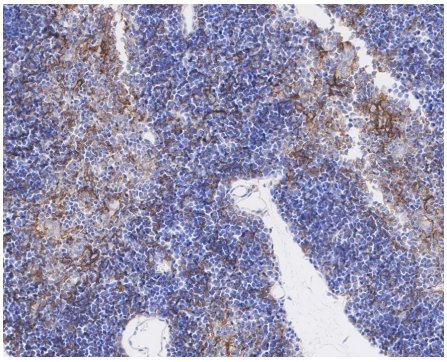

Fig2: Immunohistochemical analysis of paraffin-embedded mouse thymus tissue with Rabbit anti-PD-L1 antibody (HA750974) at 1/200 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (HA750974) at 1/200 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

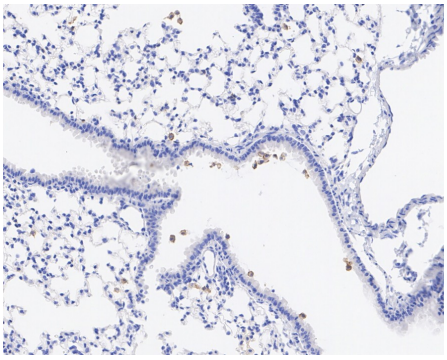

Fig3: Immunohistochemical analysis of paraffin-embedded mouse lung tissue with Rabbit anti-PD-L1 antibody (HA750974) at 1/200 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (HA750974) at 1/200 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

Background References

1. Lei Q et al. Resistance Mechanisms of Anti-PD1/PDL1 Therapy in Solid Tumors. Front Cell Dev Biol. 2020 Jul
2. Tran-Nguyen VK et al. Structure-based virtual screening for PDL1 dimerizers: Evaluating generic scoring functions. Curr Res Struct Biol. 2022 Jun