

Anti-PD-L1/CD274 Antibody Picoband™

Catalog Number: PB9154

About CD274

Programmed death-ligand 1 (PD-L1) also known as CD274 or B7-H1 is a protein that in humans is encoded by the CD274 gene. It is mapped to 9p24.1. PD-L1 is a 40kDa type 1 transmembrane protein that has been speculated to play a major role in suppressing the immune system during particular events such as pregnancy, tissue allografts, autoimmune disease and other disease states such as hepatitis. It has been concluded that upregulation of PD-L1 on tumor MDCs downregulates T-cell immunity and that PD-L1 blockade may represent an approach for cancer immunotherapy. PD-L1 can provide positive costimulatory signals for innate and adaptive immunity and for protection against intracellular bacterial infection. What's more, It has been found that PD1/PDL1 pathway may be a good target for restoring antitumor immunity in ovarian cancer.

Overview

Product Name	Anti-PD-L1/CD274 Antibody Picoband™
Reactive Species	Human
Description	Boster Bio Anti-PD-L1/CD274 Antibody Picoband™ catalog # PB9154. Tested in Flow Cytometry, WB applications. This antibody reacts with Human.
Application	Flow Cytometry, WB
Clonality	Polyclonal
Formulation	Each vial contains 4 mg Trehalose, 0.9 mg NaCl and 0.2 mg Na2HPO4.
Storage Instructions	Store at -20°C for one year from date of receipt. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for six months. Avoid repeated freeze-thaw cycles.
Host	Rabbit
Uniprot ID	Q9NZQ7

Technical Details

Immunogen	E.coli-derived human PD-L1 recombinant protein (Position: E45-T290). Human PD-L1 shares 69% amino acid (aa) sequence identity with mouse PD-L1.
Predicted Reactive Species	Bovine
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot.
Cross Reactivity	No cross-reactivity with other proteins
Isotype	Rabbit IgG

Form	Lyophilized
Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.
Purification	Immunogen affinity purified.
Suggested Dilutions	Dilute the sample so that the expected range of concentrations fall within the detection range of this kit. If the expected range of concentration is unknown, a pilot test should be conducted to decide the optimal dilution ratio for your samples. Some PubMed article(s) citing the expression level of this target are as follows: Boster Bio's internal QC testing used: Western blot, 0.25-0.5ug/ml, Human Flow Cytometry, 1-3 ug/1x10⁶ cells, Human

Anti-PD-L1/CD274 Antibody Picoband™ (PB9154) Images

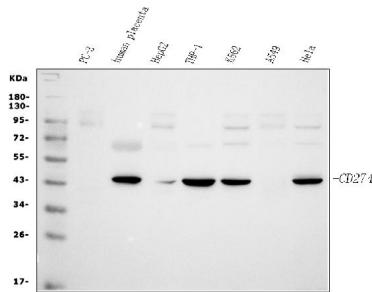


Figure 1. Western blot analysis of PD-L1 using anti-PD-L1 antibody (PB9154).

Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions.

Lane 1: human PC-3 whole cell lysates,
Lane 2: human placenta tissue lysates,
Lane 3: human HepG2 whole cell lysates,
Lane 4: human THP-1 whole cell lysates,
Lane 5: human K562 whole cell lysates,
Lane 6: human A549 whole cell lysates,
Lane 7: human HeLa whole cell lysates.

After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-PD-L1 antigen affinity purified polyclonal antibody (Catalog # PB9154) at 0.5 ug/mL overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:5000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for PD-L1 at approximately 40-50 kDa. The expected band size for PD-L1 is at 33 kDa.

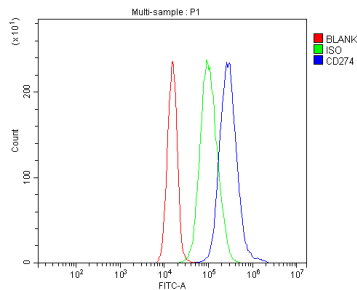


Figure 2. Flow Cytometry analysis of JK cells using anti-PD-L1 antibody (PB9154).

Overlay histogram showing JK cells stained with PB9154 (Blue line). The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-PD-L1 Antibody (PB9154, 1 ug/1x10⁶ cells) for 30 min at 20°C. DyLight® 488 conjugated goat anti-rabbit IgG (BA1127, 5-10 ug/1x10⁶ cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1 ug/1x10⁶) used under the same conditions. Unlabelled sample (Red line) was also used as a control.

1 Publications Citing This Product

1. PubMed ID: 33152901, He J,Zhang W,Di T,Meng J,Qi Y,Li G,Zhang Y,Su H,Yan W.Water extract of sporoderm-broken spores of Ganoderma lucidum enhanced pd-l1 antibody efficiency through downregulation and relieved complications of pd-l1 monoclonal antibody.Biomed Pharmacother.2020

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