

Anti-PD-L1/B7-H1 Antibody
Catalog # ABO11159**Specification**

Anti-PD-L1/B7-H1 Antibody - Product Information

Application	WB
Primary Accession	Q9NZQ7
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Format	Lyophilized

Description

Rabbit IgG polyclonal antibody for Programmed cell death 1 ligand 1(CD274) detection. Tested with WB in Human;Mouse;Rat.

Reconstitution

Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Anti-PD-L1/B7-H1 Antibody - Additional Information

Gene ID 29126

Other Names

Programmed cell death 1 ligand 1, PD-L1, PDCD1 ligand 1, Programmed death ligand 1, B7 homolog 1, B7-H1, CD274, CD274, B7H1, PDCD1L1, PDCD1LG1, PDL1

Calculated MW

33275 MW KDa

Application Details

Western blot, 0.1-0.5 µg/ml, Human, Rat, Mouse

Subcellular Localization

Isoform 1: Cell membrane; Single-pass type I membrane protein.

Tissue Specificity

Highly expressed in the heart, skeletal muscle, placenta and lung. Weakly expressed in the thymus, spleen, kidney and liver. Expressed on activated T- and B-cells, dendritic cells, keratinocytes and monocytes. .

Protein Name

Programmed cell death 1 ligand 1(PD-L1/PDCD1 ligand 1/Programmed death ligand 1)

Contents

Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na₂HPO₄, 0.05mg Thimerosal, 0.05mg NaN₃.

Immunogen

A synthetic peptide corresponding to a sequence at the N-terminus of human CD274(100-114aa QITDVKLQDAGVYRC), different from the related rat and mouse sequences by one amino acid.

Purification

Immunogen affinity purified.

Cross Reactivity

No cross reactivity with other proteins

Storage

At -20°C for one year. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for a longer time. Avoid repeated freezing and thawing.

Sequence Similarities

Belongs to the immunoglobulin superfamily. BTN/MOG family.

Anti-PD-L1/B7-H1 Antibody - Protein Information

Name CD274 ([HGNC:17635](#))

Function

Plays a critical role in induction and maintenance of immune tolerance to self (PubMed: [11015443](http://www.uniprot.org/citations/11015443), PubMed: [28813410](http://www.uniprot.org/citations/28813410), PubMed: [28813417](http://www.uniprot.org/citations/28813417), PubMed: [31399419](http://www.uniprot.org/citations/31399419)). As a ligand for the inhibitory receptor PDCD1/PD-1, modulates the activation threshold of T-cells and limits T-cell effector response (PubMed: [11015443](http://www.uniprot.org/citations/11015443), PubMed: [28813410](http://www.uniprot.org/citations/28813410), PubMed: [28813417](http://www.uniprot.org/citations/28813417), PubMed: [36727298](http://www.uniprot.org/citations/36727298)). Through a yet unknown activating receptor, may costimulate T-cell subsets that predominantly produce interleukin-10 (IL10) (PubMed: [10581077](http://www.uniprot.org/citations/10581077)). Can also act as a transcription coactivator: in response to hypoxia, translocates into the nucleus via its interaction with phosphorylated STAT3 and promotes transcription of GSDMC, leading to pyroptosis (PubMed: [32929201](http://www.uniprot.org/citations/32929201)).

Cellular Location

Cell membrane; Single-pass type I membrane protein. Early endosome membrane; Single-pass type I membrane protein. Recycling endosome membrane; Single-pass type I membrane protein. Nucleus. Note=Associates with CMTM6 at recycling endosomes, where it is protected from being targeted for lysosomal degradation (PubMed:28813417). Translocates to the nucleus in response to hypoxia via its interaction with phosphorylated STAT3 (PubMed:32929201). [Isoform 2]: Endomembrane system; Single-pass type I membrane protein

Tissue Location

Highly expressed in the heart, skeletal muscle, placenta and lung. Weakly expressed in the thymus, spleen, kidney and liver. Expressed on activated T- and B-cells, dendritic cells, keratinocytes and monocytes.

Anti-PD-L1/B7-H1 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

Anti-PD-L1/B7-H1 Antibody - Images



Anti-CD274 antibody, ABO11159, Western blotting All lanes: Anti CD274 (ABO11159) at 0.5ug/ml Lane 1: Rat Heart Tissue Lysate at 50ug Lane 2: Rat Liver Tissue Lysate at 50ug Lane 3: A549 Whole Cell Lysate at 40ug Lane 4: HELA Whole Cell Lysate at 40ug Lane 5: RAJI Whole Cell Lysate at 40ug Predicted bind size: 33KD Observed bind size: 70KD

Anti-PD-L1/B7-H1 Antibody - Background

CD274 (CD274 molecule), also known as PDCD1L1, PDL1, B7H1, CD274 molecule, cluster of differentiation (CD274) or B7 homolog 1 (B7-H1), Programmed cell death 1 ligand 1, is a protein that in humans is encoded by the CD274 gene. Levels of B7H1 correlated with PTEN loss in glioblastoma specimens, and tumor-specific T cells lysed human glioma targets expressing wildtype PTEN more effectively than those expressing mutant PTEN. Sequence analysis predicted that it has 290-amino acid. Immuno-resistance in glioma is related to loss of the tumor suppressor PTEN and is mediated in part by B7H1. 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 immune system during particular events such as pregnancy, tissue allografts, autoimmune disease and other disease states such as hepatitis. Using microarray analysis and flow cytometry, Barber et al. (2006) found that Pd1 was highly upregulated by functionally exhausted CD8 T cells from mice infected with a lymphocytic choriomeningitis virus (LCMV) strain causing chronic infection, but not by functional memory CD8 T cells from mice infected with an LCMV strain causing acute infection.