

Anti-PD-L1/B7-H1 Antibody

Catalog # ABO11159

Specification

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

ApplicationWBPrimary AccessionO9NZO7HostRabbitReactivityHuman, Mouse, RatClonalityPolyclonalFormatLyophilizedDescriptionRabbit IgG polyclonal antibody for Programmed cell death 1 ligand 1(CD274) detection. Testedwith WB in Human;Mouse;Rat.Vertice of the second sec

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 r°Constitution, 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 (<u>HGNC:17635</u>)

Function

Plays a critical role in induction and maintenance of immune tolerance to self (PubMed:11015443, PubMed:28813410, PubMed:28813417, PubMed: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, PubMed:28813410, PubMed:28813417, PubMed:36727298). Through a yet unknown activating receptor, may costimulate T-cell subsets that predominantly produce interleukin-10 (IL10) (PubMed: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).

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.

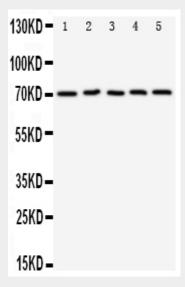
Anti-PD-L1/B7-H1 Antibody - Protocols

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



- <u>Western Blot</u>
- <u>Blocking Peptides</u>
- <u>Dot Blot</u>
- <u>Immunohistochemistry</u>
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- <u>Cell Culture</u>

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



Anti-CD274 antibody, ABO11159, Western blottingAll lanes: Anti CD274 (ABO11159) at 0.5ug/mlLane 1: Rat Heart Tissue Lysate at 50ugLane 2: Rat Liver Tissue Lysate at 50ugLane 3: A549 Whole Cell Lysate at 40ugLane 4: HELA Whole Cell Lysate at 40ugLane 5: RAJI Whole Cell Lysate at 40ugPredicted bind size: 33KDObserved 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. immunoresistance 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.Â