

**PDL1 Antibody [1D7]**  
Catalog # ASC12142**Specification****PDL1 Antibody [1D7] - Product Information**

Application	WB, IHC-P, IF, ICC, E
Primary Accession	<a href="#">O9NZQ7</a>
Other Accession	<a href="#">NP_054862</a>
Host	Mouse
Clonality	Monoclonal
Isotype	IgG1
Calculated MW	Predicted: 32 kDa
	Observed: 45 kDa KDa

**PDL1 Antibody [1D7] - Additional Information**

Gene ID	29126
Alias Symbol	CD274
<b>Other Names</b>	
PD-L1 Antibody: Programmed cell death 1 ligand-1, programmed death ligand 1, PDL1, PDL-1, B7-H1	

**Reconstitution & Storage**

PD-L1 antibody can be stored at 4°C for three months and -20°C, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.

**Precautions**

PDL1 Antibody [1D7] is for research use only and not for use in diagnostic or therapeutic procedures.

**PDL1 Antibody [1D7] - 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:<a href="http://www.uniprot.org/citations/10581077" target="\_blank">10581077</a>). 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:<a href="http://www.uniprot.org/citations/32929201" target="\_blank">32929201</a>).

#### 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.

### PDL1 Antibody [1D7] - 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](#)

### PDL1 Antibody [1D7] - Images

#### PDL1 Antibody [1D7] - Background

PD-L1 Antibody: Cell-mediated immune responses are initiated by T lymphocytes that are themselves stimulated by cognate peptides bound to MHC molecules on antigen-presenting cells (APC) (1). T-cell activation is generally self-limited as activated T cells express receptors such as PD-1 (also known as PDCD-1) that mediate inhibitory signals from the APC (2). PD-1 can bind two different but related ligands, PD-L1 and PD-L2. PD-L1 is a B7-related protein that inhibits cell-mediated immune responses by reducing the secretion of IL-2 and IL-10 from memory T cells (3). This suggests that PD-L1 may be useful in reducing allogenic CD4+ memory T-cell responses to endothelial cells, thereby reducing the likelihood of host immune responses to allografts. PD-L1 also functions as an immune checkpoint protein, and multiple anti-PD-L1 antibodies are currently in phase II and III clinical trials, with one antibody already approved for the treatment of cancer (4).

#### PDL1 Antibody [1D7] - References

Holling TM, Schooten E, and van Den Elsing PJ. Function and regulation of MHC class II molecules in T-lymphocytes: of mice and men. Hum. Immunol. 2004; 65:282-90. Ishida Y, Agata Y, Shibahara K, et al. Induced expression of PD-1, a novel member of the immunoglobulin gene superfamily, upon programmed cell death. EMBO J. 1992; 11:3887-95. LaGier J and Pober JS. Immune accessory functions of human endothelial cells are modulated by overexpression of B7-H1 (PDL1). Hum. Immunol. 2006; 67:568-78. Aydin AM, Woldu SL, Hutchinson RC, et al. Spotlight on atezolizumab and

its potential in the treatment of advanced urothelial bladder cancer. *Onco. Targets Ther.*  
2017;10:1487-502.