

**PDL-1 Antibody**  
**Catalog # ASC10509****Specification**

---

**PDL-1 Antibody - Product Information**

Application	IF
Primary Accession	<a href="#">Q9NZQ7</a>
Other Accession	<a href="#">NP_054862</a> , <a href="#">29126</a>
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Application Notes	PD-L1 antibody can be used for detection of PD-L1 by Western blot at 0.5 - 1 µg/mL. Antibody can also be used for immunohistochemistry starting at 2.5 µg/mL. For immunofluorescence start at 20 µg/mL. Flow cytometry at 0.5 µg/ml.

**PDL-1 Antibody - Additional Information**Gene ID **29126****Other Names**

PDL-1 Antibody: B7-H, B7H1, PDL1, PD-L1, PDCD1L1, PDCD1LG1, Programmed cell death 1 ligand 1, B7 homolog 1, CD274 molecule

**Target/Specificity**

PD-L1 antibody was raised against a 17 amino acid synthetic peptide from near the center of human PD-L1. The immunogen is located within amino acids 60 - 110 of PD-L1.

**Reconstitution & Storage**

PDL-1 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**

PDL-1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

**PDL-1 Antibody - Protein Information****Name** CD274 ([HGNC:17635](#))**Function**

Plays a critical role in induction and maintenance of immune tolerance to self (PubMed:&lt;a href="http://www.uniprot.org/citations/11015443" target="\_blank"&gt;11015443&lt;/a&gt;, PubMed:&lt;a href="http://www.uniprot.org/citations/28813410" target="\_blank"&gt;28813410&lt;/a&gt;, PubMed:&lt;a href="http://www.uniprot.org/citations/28813417" target="\_blank"&gt;28813417&lt;/a&gt;, PubMed:&lt;a href="http://www.uniprot.org/citations/31399419" target="\_blank"&gt;31399419&lt;/a&gt;). As a ligand

for the inhibitory receptor PDCD1/PD-1, modulates the activation threshold of T-cells and limits T-cell effector response (PubMed:<a href="http://www.uniprot.org/citations/11015443" target="\_blank">11015443</a>, PubMed:<a href="http://www.uniprot.org/citations/28813410" target="\_blank">28813410</a>, PubMed:<a href="http://www.uniprot.org/citations/28813417" target="\_blank">28813417</a>, PubMed:<a href="http://www.uniprot.org/citations/36727298" target="\_blank">36727298</a>). 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

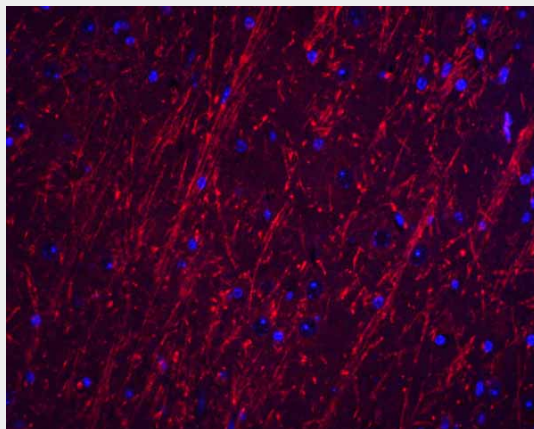
Highly expressed in the heart, skeletal muscle, placenta and lung. Weakly expressed in the thymus, spleen, kidney and liver. Expressed on activated T- and B-cells, dendritic cells, keratinocytes and monocytes.

### PDL-1 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](#)

### PDL-1 Antibody - Images



Immunofluorescence of PACS2 in mouse brain tissue with PACS2 antibody at 20 µg/ml.

### **PDL-1 Antibody - 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). 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. 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. 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. At least two isoforms of PD-L1 are known to exist; this antibody is specific to the larger isoform.

### **PDL-1 Antibody - 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.