

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

Application	WB, IHC-P, IF, E
Primary Accession	Q9NZ07
Other Accession	NP_054862, 29126
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:[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, 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

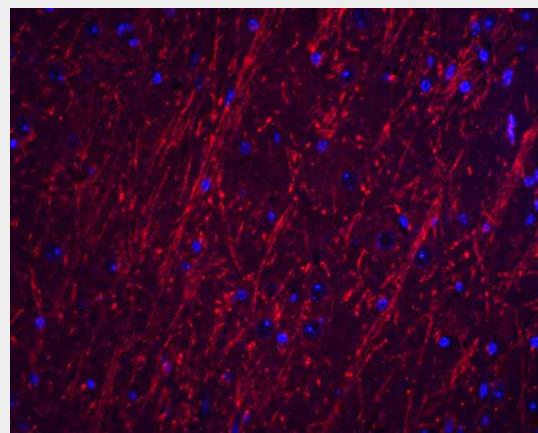
Highly expressed in the heart, skeletal muscle, placenta and lung. Weakly expressed in the thymus, spleen, kidney and liver. Expressed on activated T- and B-cells, dendritic cells, keratinocytes and monocytes.

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.