10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

PDL1 Antibody [6H10]

Catalog # ASC12139

Product Information

Application	WB, IHC-P, IF, ICC, E
Primary Accession	Q9NZQ7
Other Accession	NP_054862
Host	Mouse
Clonality	Monoclonal
Isotype	IgG1
Clone Names	CD274
Calculated MW	33275

Additional Information

Gene ID	29126
Alias Symbol	CD274
Other Names	PD-L1 Antibody: Programmed cell death 1 ligand-1, programmed death ligand 1, PDL1, PDL-1, B7-H1
Target/Specificity	PD-L1 Antibody has no cross-reactivity to PD-L2.
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 [6H10] is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	CD274 (HGNC:17635)
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.

Background

PD-L1 plays a critical role in induction and maintenance of immune tolerance to self. As a ligand for the inhibitory receptor PDCD1/CD279, PD-L1 modulates the activation threshold of T-cells and limits T-cell effector response (1). The PDCD1/CD279-mediated inhibitory pathway is exploited by tumors to attenuate anti-tumor immunity and facilitate tumor survival (2,3). Through a yet unknown activating receptor, it may costimulate T-cell subsets that predominantly produce interleukin-10 (IL10) (4).

References

Freeman et al. Exp. Med. 2000; 192:1027-34.Burr et al. Nature 2017; 549:101-5.Mezzadra et al. Nature 2017; 549:106-10.Dong et al. Nat. Med. 1999 5:1365-9.