

PD-L1-Rmab

Rabbit Monoclonal Antibody (Mab)

Catalog # AP80078

Product Information

Application	IHC-P, E
Primary Accession	Q9NZQ7
Reactivity	Human
Clonality	Monoclonal
Isotype	Rabbit IgG
Clone Names	BK58
Calculated MW	33275

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, PDL-1
Target/Specificity	Recombinant anti-PD-L1 monoclonal antibody recognizes endogenous levels of total PD-L1 protein.
Dilution	IHC-P~~1:1000 E~~Use at an assay dependent concentration.
Format	Purified recombination monoclonal antibody supplied in PBS with 0.05% (W/V) Proclin300, and 0.05% BSA. This antibody is purified through a protein A column.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	PD-L1-Rmab 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

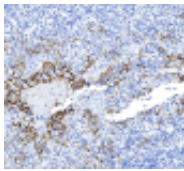
Programmed cell death 1 ligand 1 (PD-L1, B7-H1, CD274) is a member of the B7 family of cell surface ligands that regulate T cell activation and immune responses. The PD-L1 ligand binds the PD-1 transmembrane receptor and inhibits T cell activation. PD-L1 was discovered following a search for novel B7 protein homologs and was later shown to be expressed by antigen presenting cells, activated T cells, and tissues including placenta, heart, and lung. Similar in structure to related B7 family members, PD-L1 protein contains extracellular IgV and IgC domains and a short, cytoplasmic region. Research studies demonstrate that PD-L1 is expressed in several tumor types, including melanoma, ovary, colon, lung, breast, and renal cell carcinomas. Expression of PD-L1 in cancer is associated with tumor-infiltrating lymphocytes, which mediate PD-L1 expression through the release of interferon gamma. Additional research links PD-L1 expression to cancers associated with viral infections. Involved in the costimulatory signal, essential for T- cell proliferation and production of IL10 and IFNG, in an IL2- dependent and a PDCD1-independent manner. Interaction with PDCD1 inhibits T-cell proliferation and cytokine production.

References

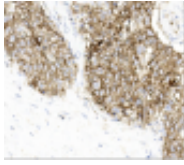
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Images

Immunohistochemical analysis of paraffin-embedded human tonsil tissue using AP80078 performed on the Abcarta® FAIP-48 Fully automated IHC platform.Tissue



was fixed with formaldehyde at room temperature, antigen retrieval was by heat mediation with a EDTA buffer (pH9. 0). Samples were incubated with primary antibody for 15 min at room temperature. AmpSee™ Detection Systems(Abcepta:ADR005) was used as the secondary antibody.



Immunohistochemical analysis of paraffin-embedded human esophageal squamous carcinoma tissue using AP80078 performed on the Abcarta® FAIP-48 Fully automated IHC platform. Tissue was fixed with formaldehyde at room temperature, antigen retrieval was by heat mediation with a EDTA buffer (pH9. 0). Samples were incubated with primary antibody for 15 min at room temperature. AmpSee™ Detection Systems(Abcepta:ADR005) was used as the secondary antibody.



Immunohistochemical analysis of paraffin-embedded NCI-H226 (left) and HEK 293 transfected with PD-L1 (right) using AP80078 performed on the Abcarta® FAIP-48 Fully automated IHC platform. Cell was fixed with formaldehyde at room temperature, antigen retrieval was by heat mediation with a EDTA buffer (pH9. 0). Samples were incubated with primary antibody for 15 min at room temperature. AmpSee™ Detection Systems(Abcepta:ADR005) was used as the secondary antibody.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.