

**Recombinant PD-L1 antibody [AK94]  
Rabbit Monoclonal Antibody (Mab)  
Catalog # AP80079**

### Specification

#### Recombinant PD-L1 antibody [AK94] - Product Information

Application	IHC-P, E
Primary Accession	<a href="#">Q9NZ07</a>
Reactivity	Human
Host	Rabbit
Clonality	Monoclonal
Isotype	Rabbit IgG
Calculated MW	33275

#### Recombinant PD-L1 antibody [AK94] - 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

Recombinant PD-L1 antibody [AK94] is for research use only and not for use in diagnostic or therapeutic procedures.

#### Recombinant PD-L1 antibody [AK94] - 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

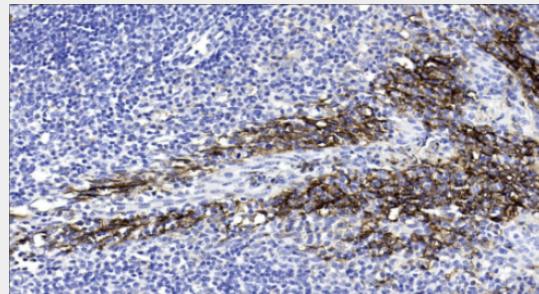
Highly expressed in the heart, skeletal muscle, placenta and lung. Weakly expressed in the thymus, spleen, kidney and liver. Expressed on activated T- and B-cells, dendritic cells, keratinocytes and monocytes.

#### Recombinant PD-L1 antibody [AK94] - Protocols

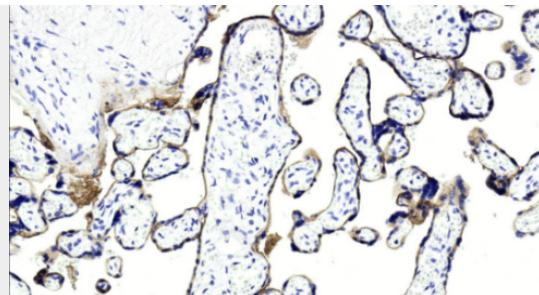
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

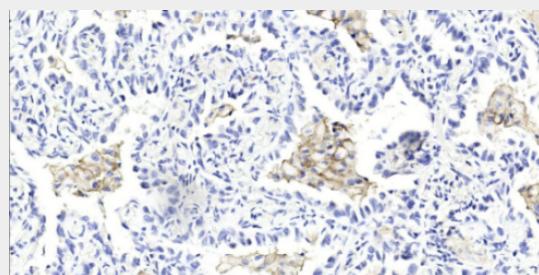
#### Recombinant PD-L1 antibody [AK94] - Images



Immunohistochemical analysis of paraffin-embedded human tonsil tissue using AP80079 performed on the Abcetta® 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. AmpSeeTM Detection Systems Abcepta:ADR005 was used as the secondary antibody.



Immunohistochemical analysis of paraffin-embedded human placenta tissue using AP80079 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. AmpSeeTM Detection Systems[Abcepta:ADR005] was used as the secondary antibody.



Immunohistochemical analysis of paraffin-embedded human lung cancer tissue using AP80079 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. AmpSeeTM Detection Systems[Abcepta:ADR005] was used as the secondary antibody.

#### **Recombinant PD-L1 antibody [AK94] - 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.

#### **Recombinant PD-L1 antibody [AK94] - References**

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