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# PD1 / PDCD1 / CD279 (Programmed Cell Death 1) Antibody - With BSA and Azide

Mouse Monoclonal Antibody [Clone PDCD1/922 ]
Catalog # AH12053

## Product Information

| | |
|---|---|
| **Application** | IHC, IF, FC |
| **Primary Accession** | Q15116 |
| **Other Accession** | 5133, 158297 |
| **Reactivity** | Human |
| **Host** | Mouse |
| **Clonality** | Monoclonal |
| **Isotype** | Mouse / IgG1, kappa |
| **Clone Names** | PDCD1/922 |
| **Calculated MW** | 31647 |

## Additional Information

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|---|---|
| **Gene ID** | 5133 |
| **Other Names** | Programmed cell death protein 1, Protein PD-1, hPD-1, CD279, PDCD1, PD1 |
| **Application Note** | IHC~~1:100~500 IF~~1:50~200 FC~~1:10~50 |
| **Storage** | Store at 2 to 8°C.Antibody is stable for 24 months. |
| **Precautions** | PD1 / PDCD1 / CD279 (Programmed Cell Death 1) Antibody - With BSA and Azide is for research use only and not for use in diagnostic or therapeutic procedures. |

## Protein Information

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|---|---|
| **Name** | PDCD1 {ECO:0000303\|PubMed:7851902, ECO:0000312\|HGNC:HGNC:8760} |
| **Function** | Inhibitory receptor on antigen activated T-cells that plays a critical role in induction and maintenance of immune tolerance to self (PubMed:21276005, PubMed:31754127, PubMed:32184441, PubMed:37208329). Delivers inhibitory signals upon binding to ligands CD274/PDCD1L1 and CD273/PDCD1LG2 (PubMed:21276005, PubMed:26602187). Following T-cell receptor (TCR) engagement, PDCD1 associates with TCR-CD3 in the immunological synapse and directly inhibits T-cell activation (PubMed:32184441). Suppresses T-cell activation through the recruitment of PTPN11/SHP-2: following ligand-binding, PDCD1 is phosphorylated within the ITSM motif, leading to the recruitment of the protein tyrosine phosphatase PTPN11/SHP-2 that mediates dephosphorylation of key TCR proximal signaling molecules, such as ZAP70, PRKCQ/PKCtheta and CD247/CD3zeta |

(PubMed:32184441).

**Cellular Location** Cell membrane; Single-pass type I membrane protein

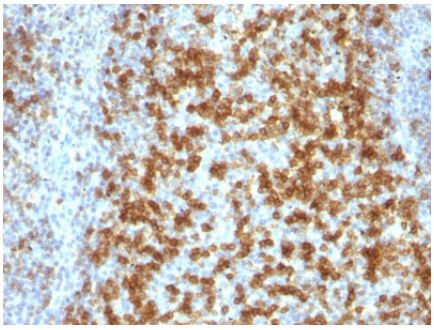
## Background

PDCD-1 (programmed cell death-1 protein), also designated CD279, is a type I transmembrane receptor and a member of the immunoglobin gene superfamily. It is expressed on activated T-cells, B-cells, and myeloid cells. Anti-PDCD-1 is a marker of angioimmunoblastic lymphoma and suggests a unique cell of origin for this neoplasm. Unlike CD10 and BCL6, PDCD-1 is expressed by few B-cells, so anti-PDCD-1 may be a more specific and useful diagnostic marker in angioimmunoblastic lymphoma. In addition, PDCD-1 expression provides evidence that angioimmunoblastic lymphoma is a neoplasm derived from germinal center-associated T-cells.

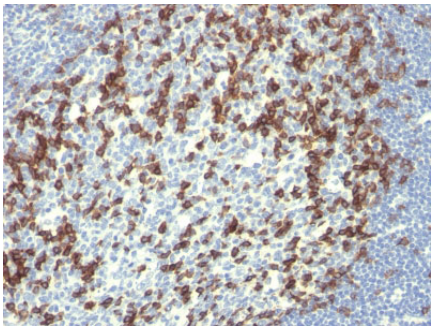
## References

Ishida, Y., et al. 1992. Induced expression of PD-1, a novel member of the immunoglobulin gene superfamily, upon programmed cell death. EMBO J. 11: 3887-3895. |

## Images



Formalin-fixed, paraffin-embedded human Tonsil stained with PD1 (CD279) Monoclonal Antibody (PDCD1/922).



Formalin-fixed, paraffin-embedded human Tonsil stained with PD1 (CD279) Monoclonal Antibody (PDCD1/922).

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