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

Mouse Monoclonal Antibody [Clone SPM597]
Catalog # AH12056

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	SPM597
Calculated MW	31647

Additional Information

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

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

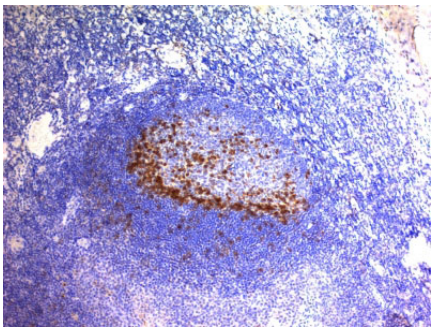
Background

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

Roncador, G., Verdes-Montenegro, J.F.G., Tedoldi, S., Paterson, J.C., Klapper, W., Ballabio, E., Maestre, L., Pileri, S., Hansmann, M.L, Piris, M.A., Mason, D.Y., Marafioti, T. Expression of two markers of germinal center T cells (SAP and PD-1) in angioimmunoblastic T-cell lymphoma. Haematologica. 2007 Aug;92(8):1059-66. |

Images



Formalin-fixed, paraffin-embedded human Tonsil stained with PD1 (CD279) Monoclonal Antibody (SPM597).

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