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PD1

Purified Mouse Monoclonal Antibody
Catalog # AO2749a

Product Information

Application	WB, IHC, ICC, E
Primary Accession	Q15116
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Clone Names	3E12A10
Isotype	Mouse IgG2a
Calculated MW	31647
Immunogen	Purified recombinant fragment of human PD1 (AA: extra 21-170) expressed in HEK293 cells.
Formulation	Purified antibody in PBS with 0.05% sodium azide

Additional Information

Gene ID	5133
Other Names	PDCD1; PD-1; CD279; SLEB2; hPD-1; hPD-l; hSLE1
Dilution	WB~~ 1/500 - 1/2000 IHC~~1:100~500 ICC~~ 1/200 - 1/1000 E~~ 1/10000
Storage	Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	PD1 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

References

1.PLoS One. 2016 Jul 26;11(7):e0159383.2.Tumour Biol. 2016 Jun;37(6):7507-14.

Images

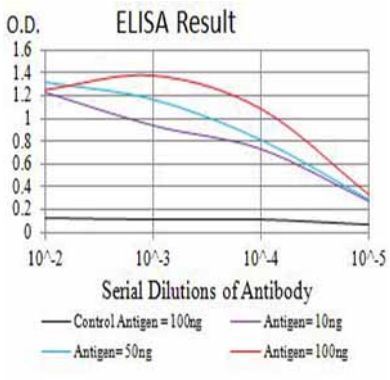


Figure 1:Black line: Control Antigen (100 ng);Purple line: Antigen (10ng); Blue line: Antigen (50 ng); Red line:Antigen (100 ng)

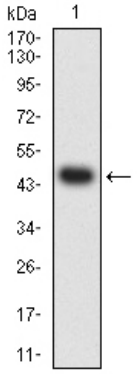


Figure 2:Western blot analysis using PD1 mAb against human PD1 (AA: extra 21-170) recombinant protein. (Expected MW is 46.6 kDa)

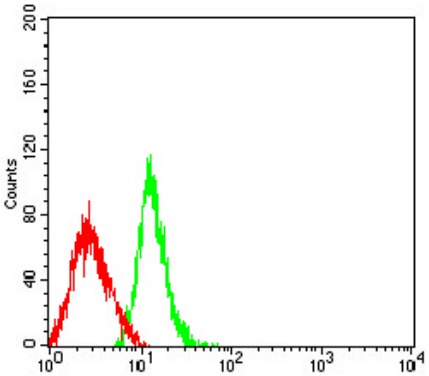
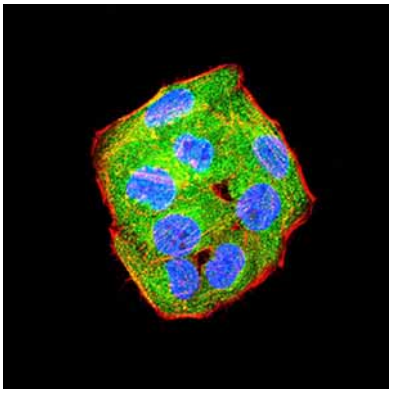


Figure 4:Flow cytometric analysis of HL-60 cells using PD1 mouse mAb (green) and negative control (red).

Figure 3:Immunofluorescence analysis of Hela cells using PD1 mouse mAb (green). Blue: DRAQ5 fluorescent DNA dye. Red: Actin filaments have been labeled with Alexa Fluor- 555 phalloidin. Secondary antibody from Fisher (Cat#: 35503)



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