

# Product datasheet for UM800090

### OriGene Technologies, Inc.

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### PD1 (PDCD1) Mouse Monoclonal Antibody [Clone ID: UMAB198]

#### **Product data:**

**Product Type:** Primary Antibodies

Clone Name: UMAB198

**Applications:** 10k-ChIP, IF, IHC, WB

**Recommended Dilution:** IHC 1:100~1200, WB 1:500, IF 1:100

**Reactivity:** Human, Mouse, Monkey, Dog

Host: Mouse Isotype: IgG2a

Clonality: Monoclonal

Immunogen: Full length human recombinant protein of human PDCD1 (NP\_005009) produced in HEK293T

cell

**Formulation:** PBS (pH 7.3) containing 1% BSA, 50% glycerol and 0.02% sodium azide.

**Concentration:** 0.5~1.0 mg/ml (Lot Dependent)

**Purification:** Purified from mouse ascites fluids or tissue culture supernatant by affinity chromatography

(protein A/G)

Conjugation: Unconjugated

Storage: Store at -20°C as received.

**Stability:** Stable for 12 months from date of receipt.

**Predicted Protein Size:** 29.2 kDa

**Gene Name:** programmed cell death 1

Database Link: NP 005009

Entrez Gene 18566 MouseEntrez Gene 486213 DogEntrez Gene 5133 Human

Q15116





**Background:** This gene encodes a cell surface membrane protein of the immunoglobulin superfamily. This

protein is expressed in pro-B-cells and is thought to play a role in their differentiation. In mice, expression of this gene is induced in the thymus when anti-CD3 antibodies are injected and large numbers of thymocytes undergo apoptosis. Mice deficient for this gene bred on a BALB/c background developed dilated cardiomyopathy and died from congestive heart failure. These studies suggest that this gene product may also be important in T cell function

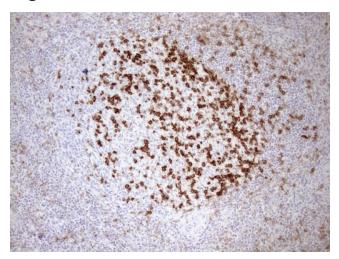
and contribute to the prevention of autoimmune diseases. [provided by RefSeq, Jul

Synonyms: CD279; hPD-1; hPD-1; hSLE1; PD-1; PD1; SLEB2

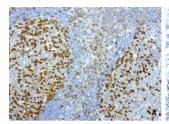
**Protein Families:** Druggable Genome, Transmembrane

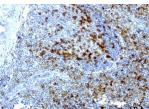
**Protein Pathways:** Cell adhesion molecules (CAMs), T cell receptor signaling pathway

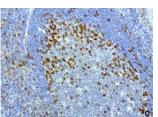
## **Product images:**



Immunohistochemical staining of paraffinembedded Human tonsil using anti-PDCD1 mouse monoclonal antibody. (Heat-induced epitope retrieval by 1mM EDTA in 10mM Tris buffer (pH8.5) at 110°C for 10min, UM800090) (1:1200)

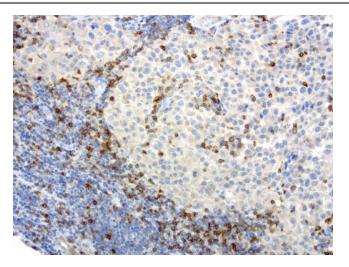




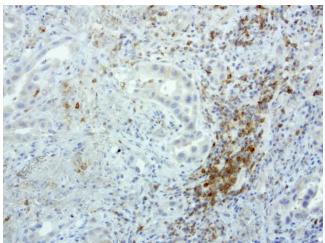


Immunohistochemical staining of 3 cases of paraffin-embedded human tonsil using anti-PD-1 clone UMAB198 mouse monoclonal antibody (UM800090) at 1:800 with Polink2 Broad HRP DAB detection kit; heat-induced epitope retrieval with GBI Accel pH8.7 HIER buffer using pressure chamber for 3 minutes at 110C. Very strong cytoplasmic and membraneous staining in the activated Tcells of tonsil.

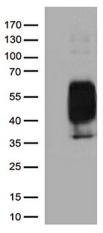




Immunohistochemical staining of paraffinembedded human melanoma using anti-PD-1 clone UMAB198 mouse monoclonal antibody (UM800090) at 1:800 with Polink2 Broad HRP DAB detection kit; heat-induced epitope retrieval with GBI Accel pH8.7 HIER buffer using pressure chamber for 3 minutes at 110C. Very strong cytoplasmic and membraneous staining in the activated Tcells no staining on the tumor.

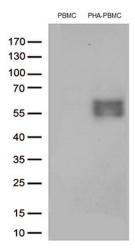


Immunohistochemical staining of paraffinembedded human lung cancer using anti-PD-1 clone UMAB198 mouse monoclonal antibody (UM800090) at 1:800 with Polink2 Broad HRP DAB detection kit; heat-induced epitope retrieval with GBI Accel pH8.7 HIER buffer using pressure chamber for 3 minutes at 110C. Very strong cytoplasmic and membraneous staining in the activated Tcells no staining on the tumor.

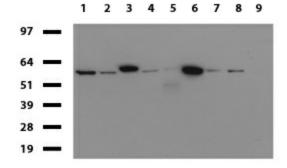


HEK293T cells were transfected with the pCMV6-ENTRY control (Left lane) or pCMV6-ENTRY PDCD1 ([RC210364], Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-PDCD1 antibody (1:2000).

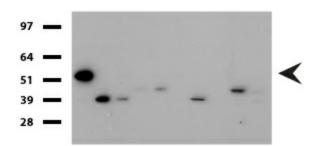




Western blot analysis of extracts (35ug) from PBMCs and PHA-stimulated-PBMCs by using anti-PDCD1 monoclonal antibody (1:250).



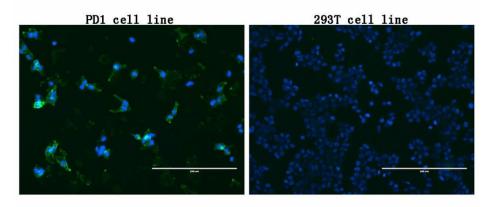
Western blot of cell lysates (35ug) from 9 different cell lines (1: HepG2, 2: HeLa, 3: SV-T2, 4: A549, 5: COS7, 6: Jurkat, 7: MDCK, 8: PC-12, 9: MCF7). Diluation: 1:500.



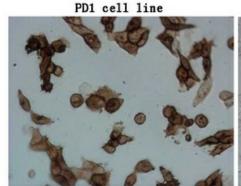
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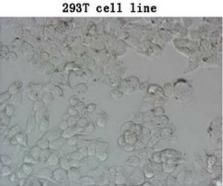
Western blot of human tissue lysates (15ug) from 10 different tissues (1: Testis, 2: Omentum, 3: Uterus, 4: Breast, 5: Brain, 6: Thyroid, 7: Colon, 8: Spleen 9: Liver, 10: Ovary). Diluation: 1:500.





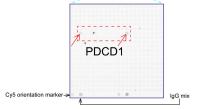
Immunofluorescent staining of PDCD1 ([RC210364])-stable-expression cells (left) labeling PDCD1 with mouse monoclonal antibody UM800090 (1:100, green) and nucleus with Hoechst33342 (blue). HEK293T cells serve as negative control (right).





Immunocytochemistry staining of PDCD1 ([RC210364])-stable-expression cells (left) labeling PDCD1 with mouse anti-PDCD1 monoclonal antibody UM800090 (1:900). The rihgt is negative control.





OriGene overexpression protein microarray chip was immunostained with UltraMAB anti-PDCD1 mouse monoclonal antibody (UM800090). The positive reactive proteins are highlighted with two red arrows in the enlarged subarray. All the positive controls spotted in this subarray are also labeled for clarification (1:100).